TOWING SAFETY ADVISORY COMMITTEE

DEPARTMENT OF TRANSPORTATION

UNITED STATES COAST GUARD

Minutes of Meeting held Thursday, September 27, 2001 U.S. Coast Guard Headquarters Washington, DC

ATTENDEES

Coast Guard Staff:

CAPT Michael W. Brown; Chief, Office of Operating and Environmental Standards; (G-MSO) Executive Director TSAC

Mr. Gerald P. Miante; (G-MSO) Assistant Executive Director TSAC

CDR Brian Peter; Office of Operating and Environmental Standards; (G-MSO)

Executive Director MERPAC

Mr. Mark Gould; (G-MSO); Assistant Executive Director MERPAC

LCDR Lance A. Lindsay; Office of Operating and Environmental Standards

Mr. Robert Spears; Office of Standards Evaluation and Development (G-MSR)

Lt. Scott Calhoun; Office of Design and Engineering Standards (G-MSE)

CDR David Stalfort; Office of Personnel Resources (G-MRP)

Mr. Stewart Walker; Marine Personnel Division; National Maritime Center (NMC-4C)

Mr. Perry Stutman; Marine Personnel Division; National Maritime Center (NMC-4B)

Mr. John Bobb; Marine Personnel Division; National Maritime Center (NMC-4B)

LT(jg) Aaron Demo; Marine Personnel Division; National Maritime Center (NMC-4C)

LCDR William Brewer; Office of Cutter Management (G-OCU)

LT(jg) Matt Hammond; Office of Naval Engineering (G-SEN)

LCDR Scott Budka; Office of Investigations and Analysis (G-MOA)

Committee Members:

Mr. Jeff Parker; Vessel Operations Manager, Allied Transportation Company; Chairman

Mr. Rex H. Woodward; President, Premier Marine, Inc.; Vice-Chairman

Ms. Cathy S. Hammond; President, Inland Marine Service

Mr. Mario A. Muñoz; Risk Analyst; American Commercial Barge Line, LLC.

Ms. Diane Goncalves; Government Relations Rep., Transportation Institute

Mr. James G. Daley; Operations Manager (Contracts), Crowley Marine Services

Ms. Jennifer A. (Kelly) Carpenter; Senior V. President, American Waterways Operators

Mr. James C. DeSimone; Vice President, Great Lakes Towing

Ms Marina V. Secchitano; Regional Director, Inland Boatman's Union of the Pacific

Ms Laurie Frost Wilson; President; LFW, Atty. at Law

The Coast Guard hosted a combined public meeting of the Towing Safety Advisory Committee (TSAC) and the Merchant Marine Personnel Advisory Committee (MERPAC) at USCG Headquarters, Washington, DC on September 27, 2001

(<u>Enclosure 1</u>). The session followed a one-day meeting of the Working Groups, at which TSAC discussed Fire Suppression and Voyage Planning, and Crew Alertness; and TSAC members participated in MERPAC's Working Groups on Utilizing Military Training and Sea Service, Manning, and ARPA/Radar. (<u>Enclosure 2</u>).

Introduction and Welcome

TSAC Chairman, Mr. Jeff Parker, and MERPAC Chairman Mr. Andrew McGovern opened the meeting by calling for introductions from all participants and enumerating the nature of votes to be taken during the meeting on finished work products and potential taskings.

After welcoming comments by CAPT Michael Brown, Executive Director of TSAC, and CDR Brian Peter, Executive Director of MERPAC, RADM Paul Pluta, Assistant Commandant for Marine Safety and Environmental Protection (G-M) and the Coast Guard's sponsor for both Committees, was introduced for comments. RADM Pluta expressed his gratitude to all who were in attendance in light of the recent tragic events of September 11, 2001. He then spoke for several minutes about the Coast Guard's responsibilities as a result of the attacks on the United States. He finished by expressing his strong interest in the work of both Committees and promised not to be a silent partner in their activities.

All MERPAC and TSAC members introduced themselves to RADM Pluta and gave their affiliations. Members of the public also introduced themselves.

TSAC Chairman Jeff Parker gave an overview of his committee's responsibilities and the active task statements that TSAC is engaged in: Licensing implementation; Crew alertness; and, Fire suppression. Each TSAC working group chairperson gave a brief report on the status of their task statement. MERPAC Chairman Andrew McGovern also gave an overview of his committee's responsibilities and the proposed task statements that the committee intended to engage in during this meeting: Utilizing military service and sea training to obtain merchant marine licenses; Increasing maritime security; Updating ARPA/Radar observer training, and; Manning on vessels engaged in domestic service. After MERPAC members voted to engage in all of these task statements, chairpersons were selected to head each working group.

Both committees voted to accept the previous meeting's minutes without change.

[Details of MERPAC's proceedings can be found in that Committee's minutes]

Existing Business

- Ms. Jennifer (Kelly) Carpenter, Chair of Licensing Implementation Work Group, announced that, due to travel arrangement problems created by the September 11 attack, the working group meeting scheduled for earlier in the week on Tuesday had to be postponed until November; date and location to be determined. Absent a complete working group report, she distributed a "work-in-progress" update (*Enclosure 3*) on the group's current project: the development of assessment criteria for the Towing Officers' Assessment Record. Ms. Carpenter reviewed the elements of the task statement, and presented the guiding principles by which the group is proceeding. She called special attention to those principles related to "value added" criteria, and the need for the criteria to be consistent and reliable as well as objective and based on observable behavior. She invited anyone on the Committee, or from the public, to give her feedback on the material thus far. Finally, she stated that the working group would present an interim report at the Committee's next meeting in the spring of 2002, followed by the final report at the fall 2002 meeting.
- ♦ Ms. Laurie Frost Wilson, Chair of the Fire Suppression and Voyage Planning Work Group, presented the group's Final Report as voted upon by the full Committee at the public teleconference meeting on April 30, 2001 (*Enclosure 4*) and announced that the Coast Guard held a public meeting on August 15th in Huntington, WV. She reported that the Coast Guard had extended the comment period for the rulemaking until September 15th to allow inland and river vessel operators additional time to present their views. She noted that every member of the public who spoke at that hearing opposed voyage planning requirements on the Western Rivers, and opposed the requirement for fixed fire suppression on both new and existing towing vessels that operate on Western Rivers and inland waters.

She reported that she had sailed on a towing vessel for three days on the Ohio River, and, as a result of experience thus gained, concluded that the voyage planning exercise is something that the river pilot continually engages in. Therefore, she moved to have the Committee reconsider its previous meeting vote to recommend to the Coast Guard that it exclude voyage planning requirements exclusively on the Western Rivers; that previous vote having failed by lack of a simple majority. Her motion to reconsider passed by a vote of 9-1; Ms. Secchitano opposed. Ms. Carpenter echoed Ms. Wilson's conclusion that on the Western Rivers, voyage planning adds no value, but instead places an extra burden on the mariner. Ms. Carpenter then reintroduced the motion "that TSAC restate its recommendation to the docket that voyage planning requirements NOT be extended to towing vessels operating exclusively on the Western Rivers as defined in 33 CFR 164.70. A member commented that this should not interfere with the required practice of master to master, or master to pilot, exchanges of information and performance of equipment checks, that occur when one crew member relieves the other as master, or during prewatch conference and discussion of standing orders. The motion passed by a vote of 9-1; Ms. Secchitano opposed.

Ms. Wilson then presented the subject of an oversight by the working group with regards to voyage planning. She pointed out that in the proposed regulations there is an exclusion from the

voyage planning requirements for towing vessels engaged in pollution response. In light of attacks on September 11, when towing vessels engaged in responding to the emergency situation ferried many people away from lower Manhattan, it was suggested that perhaps towing vessels engaged in "emergency response" should likewise be exempt from any voyage planning requirements. She moved that the Committee recommend to the Coast Guard that this exclusion be extended to these vessels so engaged. One member inquired as to the definition of an "emergency", but none could immediately be found in writing, but it was generally felt that the situation would be self-evident as other entities declare one to be in effect and when certain "emergency plans" are put into operation. The motion passed by a vote of 9-0, Ms. Secchitano abstaining.

Ms. Wilson announced that a date and location for a working group meeting to discuss Fire Fighting Training would be planned and disseminated to group members as soon as possible.

- Mr. Rex Woodward, reported on the first working group meeting for Towing Vessel Crew Alertness (Task Statement 01-01) (*Enclosure 5*). He first reiterated the four topics on which the group was asked to report: ID alertness risk factors; evaluate the criticality of these factors; make recommendations for measures to address these factors, and; make recommendations as to the best method to communicate these measures to the appropriate audiences. He announced that the group had reviewed existing reports on fatigue prepared by the IMO "Guidance on Fatigue Mitigation and Management," and a study resulting from an AWO/USCG/Industry partnership entitled: Crew Endurance Management System; and one from Circadian Technology, as well as several lesser papers. They also heard a project update on Coast Guard alertness studies by LT Scott Calhoun. Mr. Woodward reported that the group first concentrated on identification of alertness risk factors and had categorized them into operational, environmental, and personal. The working group will continue its operations in the coming months and work with the Coast Guard to share up-to-the-minute information. It will collect "best practices" information from any source it can identify. Finally, the group will consider the form of its deliverable and best method of communicating its recommendations to the proper audience. Mr. Woodward announced that he has asked for Ms. Carpenter's assistance to poll AWO companies in search of their best practices for consideration. He hopes to hold at least two working group meetings before the spring main Committee meeting and invited interested persons to participate.
- ♦ MERPAC voted to close out its task statements #24- Recommendations on a Program to Revise the Testing for Advancement of Deck Officers for STCW; #25- Recommendations on a Program to Revise the Testing for Advancement of Engineering Officers with Unlimited Horsepower Licenses for STCW; and #26- Recommendations of a Program to Revise the Testing for Advancement of Engineering Officers with Limited Horsepower Licenses for STCW

Project Updates

- ♦ Mr. Woodward commended LT Calhoun's handling of the Coast Guard's ongoing alertness project and asked that he be allowed to present a short update on the considerable progress already made (*Enclosure 6*). A key point was the presentation of a new watch system of 7/7/5/5 that allows both for possibility of six hours uninterrupted sleep and puts a more rested person on watch during those times of day when most accidents have been found to occur-0200-0600. Ms. Secchitano suggested that perhaps a NVIC can be prepared to disseminate the information that will result from these studies.
- ◆ CDR Stalfort provided a briefing on the G-M business plan outlining where the Coast Guard Marine Safety Program is headed for the next five years and where the emphasis lies with the various programs (*Enclosure 7*). He presented the directorate's goals, areas of emphasis, how the priorities have been established particularly in the aftermath of the past several week's events, and touched on several core strategies that we will continue to pursue.

The two main program goals are safety, security and environmental protection balanced with that of facilitating marine commerce. Safety goals concentrate on reduction on both passenger and crew deaths and injuries, and resultant property damage. Homeland security consists of physical and economic preservation. Environmental goals include the prevention or reduction of amount of oil spilled, of events that precipitate those spills, of plastic and garbage pollution, and addressing concerns relating to aquatic nuisance species and ballast water transfer issues. The Coast Guard is working toward not only the prevention of these occurrences but also its increased response capabilities. While preventing these occurrences, we must consider impediments to commerce and conditions that would lead to waterways closures. He then presented the eight core areas of emphasis: Homeland Security (number 1), Passenger Vessel Safety, Aquatic Nuisance Species, Marine Transportation System, Mariner Qualifications, Port Sate Control, Pollution Prevention, and Fishing Vessel Safety. Finally, he enumerated the core strategies of leveraging resources with Risk Management, PTP and Quality Partnerships.

In response to questions, CDR Stalfort gave the following information: The goal of 20% reduction in oil spills is based on the average spill amount reported over the immediate past five years. Preparedness Standards are already in place for many operations; our goal is to continually monitor them and assess our ability to meet them along with industry. We are not looking to establish new external standards, only internal ones that will increase that ability.

♦ Mr. Stu Walker presented information on the National Maritime Center's (NMC) guidance to the Regional Examination Centers (RECs) relative to evaluating a mariner's qualifications under STCW and the consistency issue in the preparation and issuance of STCW certificates. He warned that we are quickly approaching the 1 February 2002 deadline for full STCW compliance and the managers in the audience should urge their mariners to do what's necessary to conform. He assured the Committees that the RECs are doing all they can in the face of increased work loads of course evaluation, NDR checks and certificate issuance without resultant increases in resources. Over the next three months, the NMC will issue policy letters to

address guidance to process applicants after 1 February 2002. One of the Coast Guard's priorities is how the NMC and the RECs are going to address these tasks and the possible resultant backlog. CAPT Fink, Commanding Officer of the NMC, is meeting with high-level officials to finalize a draft plan that will be implemented soon.

♦ Mr. Walker was asked what would become of the inland mariner and his process of license applications in view of the emphasis on STCW. He answered that the plan will address all ports and license or document levels. Support was expressed for added personnel and funding resources at all RECs to alleviate backlog workloads. This assistance may come in the form of overtime authorization to the reassignment of billets from one port to another. Mr. Walker addressed the question of possible difficulty if many ships were broken out to support any activity in Near East areas. He said the CG would address the necessary issuance of documents, but that finding the proper number of mariners is MARAD's function. One Committee member expressed concern over government monetary assistance for required STCW training and the possibility of any grace period that might be granted for compliance with STCW; Mr. Walker could not address these comments. To the question from the public of allowing approved schools to issue temporary document renewals, he announced that the plan does have provisions for schools to assist in some manner, but could not announce what they might be.

Mr. Miante briefly introduced his rulemaking project to heavily revise Title 46 CFR, Subchapter B "Licensing and Certificating of Seamen", (Parts 10, 12, 13, 14, and 15) (*Enclosure 8*). He outlined the current structure of the subchapter and announced that the revisions would take place within that format; to do otherwise would further add confusion as to what exactly the changes and additions might be. The project would first draw together several other rulemakings either in progress or soon to be begun- examples are the Final Rule of STCW implementation and either the Final or Interim Rule on Medical Standards for Mariners.

Part 10 would include a revised license examination system to conform more closely to the STCW structure of three licenses at two levels, yet maintain the four separate domestic licenses in each department. The project would also create the new engineering propulsion mode of "Gas Turbines" in response to STCW '95 requirements for training and assessment in that area. Part 12 would undergo parallel revisions relative to items in other rulemakings, a proposal for a reduction in the number of engine room ratings from nine to five, as well as complete revision of the part's numbering system to conform to the current standard protocol in other parts of the title. Part 13 would most probably address only one point: allowing time served as a "Cargo Engineer" to qualify a mariner as a Person-in-Charge for LG. Part 14 will clarify some vessel operation responsibilities and data submission requirements. Any details regarding the revision to part 15 have yet to be discussed with the Office of Compliance (G-MOC) and so are unavailable. We would most likely revisit watch standing and manning requirements on all routes in light of applicable results from the ongoing alertness studies. Finally, all parts will undergo individual section or paragraph revisions resulting from industry feedback, and from Coast Guard HQ offices, the NMC and field units such as the RECs.

The workplan for this project is in clearance through the offices at HQ. The timeline includes workplan approval within a year, an NPRM with 180-day comment period and 3 public

meetings, and a Final Rule, along with an intervening IR, if necessary, within 6 years. Mr. Miante welcomes input and suggestions from individuals as well as from all Advisory Committees. Mr. Block of the public offered that section 15.601 is very confusing and should be specifically addressed

◆ LCDR Scott Budka presented a brief on the revised regulations for drugs in 46 CFR Part 16. This was necessary because DOT revised its related regulations in Title 49 CFR, Part 40 that became effective on August 1, 2001, in which all modes of transportation were required to update their individual parts. The Coast Guard limited its revision only to conform to the part 40 changes. The Final Rule was published on August 16, 2001 with a concurrent effective date. Major changes include mandatory blood samples which were previously optional. A special point of interest to the maritime community is the provisions in section 40.25 concerning background checks. The comment period for this one section was re-opened and comments were addressed in a Federal Register publication on August 9, 2001 and took effect on August 16, 2001.

Ms. Secchitano stated that the employers on the West Coast, lacking documentation to this effect, are not convinced that these rules have lowered drugs in the workplace and are worth the new privacy violations. She asked the Department and the Coast Guard to re-think their positions on this matter. Ms. Carpenter made note of the new DOT requirements for collector training that seem be in excess of what is necessary for a vessel's master, for example, who might perform the function on rare occasions such as an accident at sea. LCDR Budka replied that in the August 9 preamble, the Coast Guard did address that concern by noting that in is inappropriate for the maritime community to adhere to that rule. Also, if one was a qualified collector prior to August 1, 2001, that person may continue to act as a collector until 2003, but must receive the training before that time. Mr. Grassia pointed out that according to the DOT regulations, an immediate supervisor can't collect a sample.

♦ [At this point, MERPAC adjourned to separate quarters]

Old Business/ New Business

- ◆ <u>Tank Barge Gauging</u>: <u>Task Statement # 01-05</u> (*Enclosure 9*). A discussion and vote on this statement was deferred until next meeting when the member who proposed the task, Mr. Steve Zeringue, is in attendance and can introduce the subject.
- ◆ Review of Gulf Coast Mariners Association (GCMA) Report #R-276 [Rev.1]: Task Statement. # 01-06 (Enclosure 10).

The Committee briefly discussed several particular points in the report as to how they relate to the proposed tasking. CAPT Brown announced that this task statement does not foreshadow any specific rulemaking but is meant to be open-ended. The Coast Guard is seeking the Committee's

advice as to whether or not any actions should be taken on our part. This advice should be given in the broad sense, on a variety of issues brought up by the report.

Mr. Block answered Ms. Wilson's question that each member of TSAC should have been provided a copy of the original report. The main thrust of the paper is that mariners working on uninspected towing vessels are not protected in the same manner as mariners working on other vessels of comparable size. The GCMA is requesting that Congress and the Coast Guard consider the inspection of these towing vessels.

Ms. Carpenter suggested that the Committee establish a small group to review the report and come to the next meeting with suggestions on what the individual tasks should be. Ms. Secchitano asked if any Committee had any inspected towing vessels; while many had "classed" or "chance boarded" vessels, none had CG inspected vessels that need have a Certificate of Inspection- that includes plan review, construction oversight, and periodic regularly schedule inspection process, usually on a yearly basis. However, Mr. DeSimone made it clear that "classed" vessels undergo just that regimen that "inspected" vessels go through, albeit by the class society (which conducts some streamlined inspection programs for on behalf of the CG on "inspected" vessels) and not the Coast Guard.

Ms. Carpenter put her former suggestion in the form of a motion that passed unanimously. Mr. Mario Muñoz will chair the working group, with Mr. Miante serving as the Coast Guard contact.

♦ Increasing Maritime Security: Task Statement # 01-07 (Enclosure 11).

MERPAC has a similar task statement. TSAC suggested that a fifth task be added regarding commandeering of a vessel. The two working groups will work jointly with to arrive at proper wording. One member suggested: "What threats do you anticipate towing vessels with barges facing and how should those threats be addressed?" TSAC voted to accept the tasking. Mr. Jim DeSimone will be the chair of the TSAC working group, and LCDR Jack Kenyon, Chief Waterways Security Division, will serve as the Coast Guard Representative.

At the "New Business" conclusion, Ms. Secchitano made a statement that she supported the Coast Guard's efforts in fire suppression and that the same sprinkle system that protects the meeting room, although expensive have merit on towing vessels.

Public Comment

♦ Mr. Richard Plant, Masters, Mates and Pilots, spoke of his participation in the meeting of the working group on security where they discussed the necessity for log books on board every vessel to assist in incident investigation, crew lists to determine just who are sailing our vessels, and cargo manifests so that officials can be sure what the barges are carrying. He pointed out the dangers of barges loaded with tons of ammonium nitrate compared with the few pounds of explosives that leveled the Federal building in Oklahoma City. He also supported the

issuance of merchant mariner documents to ALL mariners and the creation of horsepower/tonnage tables.

He expressed concern over the fatigue issue and commended LT. Calhoun's work in that regard. He also pointed out that the key to maritime recruitment and retention, and quite possibly the fatigue issue with a three-watch system, is the factor of money. He called for "whistle-blower" legislation to assist mariners in reporting not only violations of the law but also suspicious persons on board or around the docks. Finally, he supported a joint TSAC/MERPAC meeting at least every two years and reported that soon the Supreme Court would be making the decision as to whether OSHA or the Coast Guard would be inspecting vessels.

- Mr. Bill Beacom spoke on large corporations buying into our (maritime) industry and pressuring middle management into making a profit. He pointed out that the only two ways to increase profit: reduce cost or increase production. One way to cut cost is to reduce the number in the crew. Similarly, one way to increase production is to require boats to tow from 36 to 48 barges without regard to horsepower of the vessel. Under these conditions, he feels we need intervention in establishing contact with middle management and owners to convey to them the advice of experienced mariners that are fading from the office scene. He stated that the time for study after study was over; even the present fatigue studies are doom to failure because we can't get 6 gallons of water into a 5 gallon bucket: regulation or legislation is needed to help the mariner in the company's decision making process to relieve the problem. Mr. DeSimone responded that he, as a licensed master, was very impressed with Lt. Calhoun's reported progress. He personally can't wait to return to his company to sample an alternative watch schedule, and that industry should try what's coming out of these studies before criticizing. Mr. Beacom retorted that by the study's own criteria the mariner needs 7 or 8 hours uninterrupted sleep and that they could only provide 5-1/2 hours even with the changes. Also, they admit that a mariner works over a certain number of days at 12 hours a day, fatigue will set in regardless of his work schedule. He is looking for a system that gives the mariner the 7-8 hours he needs, not a "band-aid" approach with only 5-1/2.
- ♦ Mr. David Whitehurst brought attention to the AWO 'Responsible Carrier Program (RCP) manual wherein it refers to logging certain data relative to the condition of a vessel, a list of crew members, including their jobs, ratings and/or licenses, crew change times, and a listing of those relieved and coming on duty. He stated that the only thing he sees missing is the statement of what kind of logbook should be used. The GCMA would like to see a "hard-bound" volume. He referred to a list he had complied of the program's "requests". Specifically, he knew of no cooks who held a health certificate. He praised the program understands the Coast Guard agrees with it, yet there as still no mandatory log books aboard most UTVs. He reminded the Committee of several towing vessel alisions that were the source of OUTV licensing and radartraining requirement, pointing out that it seems to be the mariner that is saddled with the additional burden. Yet, he alleges, vessel personnel are still required to work in excess of their 12 hours in violation of the law. He reported that the RCP states that crewmembers should have a high school or GED, yet ½ to 2/3 of the deckhands do not qualify; he himself having completed only a fourth grade but considers himself a competent captain. He also described the dying art of

coming up through the ranks on a towing vessel by applying an interest in the boat with learning all that it can or cannot do.

Ms. Secchitano asked if there were any regulations concerning the maximum size of a tow. CAPT Brown stated that he was not aware of any general requirements or prohibitions except, perhaps, for areas around New Orleans during periods of high water.

- Finally, Mr. Richard Block made the statement that the GCMA had invited LT. Calhoun to visit them when he was in New Orleans to speak to the Offshore Marine Service Association (OMSA) but have never been contacted. The Coast Guard has always considered industry (management) in its partnerships and decisions. He hopes these studies in fatigue will consider the mariner also.
- Ms. Carpenter reviewed the list of TSAC's action items (*Enclosure 12*).
- The next meeting is tentatively scheduled for mid-March, possibly in San Francisco.

(signed)	(signed)
Captain Michael W. Brown	Mr. Jeff Parker
Executive Director	Chairman
Date	Date

Encl: (1) Agenda, 9/27/01, Public Meeting

- (2) Agenda, 9/26/01, Working Group Activities
- (3) Report of the Licensing Implementation Working Group
- (4) Reports of the Fire Suppression & Voyage Planning Working Group
- (5) Report of the Crew Alertness Working Group
- (6) Status Report on Crew Alertness
- (7) Presentation on the G-M Business Plane
- (8) Presentation on Regulation Project: Revision of 46 CFR Subchapter B
- (9) Task Statement 01-05 (Tank Barge Gauging)
- Task Statement 01-06 (Review of GCMA Report (10)
- Task Statement 01-07 (Increasing Maritime Security) (11)
- (12)Action Items

TSAC- Public Meeting Agenda – Thursday, September 27, 2001 [Enclosure (1)]

0830	Introduction & Welcome	
	Chairs' Remarks	Messrs. McGovern & Parker
	Executive Directors' Remarks	CDR Peter & CAPT Brown
	Sponsor's Remarks	RADM Pluta
0900	Existing Business/Reports	
	1. Acceptance of Minutes	Committee Chairs
	2. Licensing Implementation (TSAC)	Ms. Carpenter
	3. Fire Suppression & Voyage Planning (TSAC)	Ms. Wilson
	4. Crew Alertness (TSAC)	Mr. Woodward
	5. Close out Task Statements (MERPAC)	Mr. McGovern
1000	<u>Break</u>	
1030	Briefings	
	1. G-M Business Plan	CDR Stalfort
	2. Status of Licensing, Certification and STCW	Mr. Walker / CAPT Fink
	3. Rulemaking Project: Revision of 46 CFR 10-15	Mr. Miante
	[Committees Separate]	
1130	New Business	Mr. Parker
	Review of Proposed Task Statements	
1200	Public Comment	Mr. Parker
1230	Summary of TSAC Action Items	Ms. Carpenter
1235	Schedule Next Meeting Date	Mr. Parker
1240	Adjourn	

TSAC - Working Group Meeting Agenda - Wed., Sept. 26, 2001 [Enclosure (2)]

0830	Arrival	
0900	 Introduction & Welcome Review of Meeting Schedule and Objectives Overview of Both Committees Discussion of Working Groups Status and New Taskings 	Committee Chairs: Messrs. McGovern & Parker
	[Committees Separate]	
1000	Working Group Meetings	Committee/WG Chairs
	• Licensing Implementation (TSAC)	
	• Fire Suppression and Voyage Planning (TSAC)	
	• Crew Alertness (TSAC)	
	Utilizing Military Sea Service/Training for Merchant Marine Licenses (MERPAC)	
	Manning on Vessels Engaged in Domestic Service (MERPAC)	
	Updating ARPA/Radar Observer Training (MERPAC)	
1200	<u>Lunch</u>	All
1300	Working Group Meetings (Cont.)	All
1500	Summary of Working Groups (TSAC)	WG Chairs
1530	<u>Adjourn</u>	Mr. Parker

Performance Evaluation Criteria Development for the Towing Officer Assessment Records (TOARs) [Enclosure (3)]

GUIDING PRINCIPLES

- Performance evaluation criteria are meant to be used in conjunction with the TOARs and will be developed only for tasks listed in the TOARs.
- Performance evaluation criteria should add value to the TOARs by making the assessment process clearer and easier to use for both the mariner and the designated examiner.
- Performance evaluation criteria should allow for consistent and reliable assessments of mariner performance. They should be as objective as necessary and based on observable or measurable behavior
- Performance evaluation criteria should not be unnecessarily long or complex.
- Performance evaluation criteria should focus on the critical steps needed to perform a task without injuring people or damaging equipment.
- STCW and its related assessment criteria do not apply to inland towing operations.

Towing Officer Assessment Records (TOARs)

AMPLIFYING GUIDANCE

Include at the beginning of each TOAR:

• It is expected that at all times, the mariner being assessed will act with consideration for the safety of the crew, the vessel, its cargo, and the environment, and will not take any action or neglect any responsibilities that would cause personal injury, equipment damage, or pollution. If a collision, allision, injury, or pollution incident occurs in the course of assessing a given task, the Designated Examiner will not give credit for the satisfactory completion of the task.

Include at the beginning of the MANEUVERING section:

• All maneuvering tasks must be completed in accordance with the Rules of the Road. If a mariner violates the Rules of the Road, the Designated Examiner will <u>not</u> give credit for the satisfactory completion of the task.

Towing Officer Assessment Record: Limited

NAME:	
LICENSE NO.:	

Considered Competent

		<u> </u>	Considered	Competent
Task No.	Common Element	Task or Duty	DE's Initials	Date
A .		Vessel Familiarization		
A.1.	Х	Locate and demonstrate use of fire-fighting equipment		
		*Using a diagram of the boat or on board the vessel, locate and correctly identify all on-board fire fighting equipment	,	
4.0	V	*Describe intended use of all on-board fire fighting equipment		
A.2.	Х	Locate and demonstrate use of life-saving equipment		
		*Using a diagram of the boat or on board the vessel, locate and correctly identify all on-board life-saving equipment		
		*Describe intended use of all on-board life-saving equipment		
A.3.		Identify and describe:		
A.3.a.	X	a. main engine/propulsion system		
		*Describe characteristics of drive train (such as control delays, propulsion type, shaft brakes, etc.)		
A.3.b.	X	b. steering system		
		*Describe type of system *Demonstrate operation of system in all modes (such as follow-up, non follow-up, and auto-pilot, if so equipped)		
A.3.c.	Х	c. auxiliary systems		
		*On board the vessel, locate and identify components and controls for auxiliary systems, including electrical, air, and hydraulic systems		
		*Switch generators, or state procedures for switching generators		
A.4.	Х	Describe and follow vessel fuel transfer procedures		
		*Locate fuel transfer procedures		
		*Describe PIC (person in charge) and other crewmembers' responsibilites under the transfer procedures *Participate in a fuel transfer according to the transfer		
		procedures		
A.5.	Х	Identify physical characteristics of vessel and tow		
		*State length, breadth, draft and highest fixed point of vessel and tow		

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		*Describe tow configuration and cargoes and identify the		
A.6.	Х	location of any hazardous cargo in tow Conduct safety orientations for new crewmembers		
A.6.		*Conduct orientations required by regulation and company		
		policy		
		Use vessel's internal communications system or		
A.7.	X	equipment		
		*Locate and use all internal communication equipment on vessel		,
		Nevigotion and Dileting		
B.		Navigation and Piloting		
B.1.	X	Describe the effect of tide or current on vessel's position		
		*While navigating over a prescribed route, describe the effect of tide or current conditions on the vessel's position		
		*Explain actions to be taken to compensate for tide or current		
B.2.	X	Allow for draft and clearances in navigation of vessel		
		*Identify draft and calculate vertical clearance for a given		
		overhead obstruction using required charts and publications		
		*Determine as accurately as possible underkeel clearance		
		based on draft, water density, and information from all available sources (such as charts, maps, Notice to Mariners,		
		local knowledge, etc.)		
B.3.	х	Conduct pre-voyage tests and inspections per 33 CFR 164.80		
B.4.	X	Describe and comply with VTS reporting requirements		
B.5.	X	Communicate using VHF radio		
B.6.	Х	Provide radio/whistle notice of getting underway		
B.7.	Х	Make security calls		
B.8.	Х	Initiate appropriate actions in reduced visibility		
C.		Watchstanding		
C.1.	х	Operate and use all electronic navigation equipment in pilothouse		
	1	*On a vessel or in a simulator, demonstrate proper operation		
		of each piece of navigation equipment in the pilothouse		
		*Using the information from the available equipment, safely		
	1	direct the movement of the tow over a specified route		1
C.2.	X	Use compass or swing meter (as applicable)		
		*Compass: Given a true course to steer, apply variation and deviation to find the magnetic course to steer		
		*Swing meter: Given a section of river, maintain the sailing		
		line for 2 miles		
C.3.	X	Make appropriate entries in logbook		
C.4.	Х	Maintain proper lookout		
		*On a vessel or in a simulator, while standing a watch, demonstrate high situational awareness by staying focused, avoiding distractions, and effectively using all available resources to maintain a vigilant lookout		

		_	1	
		Communicate navigation and vessel status information		
C.5.	X	to the relieving watch officer		
		*Conduct a change of watch and communicate to relieving		
		officer specific information relevant to vesel position,		
		equipment readiness, weather, traffic, tow changes, navigational hazards, river/sea conditions, and crew		
		readiness		
		redunices		
D.		Maneuvering		
D.1	Х	Maneuver light boat		
		*In a light boat, over a prescribed route and stated speed:		
		1) Maneuver vessel forward		
		2) Maneuver vessel astern for at least two boat lengths		
		3) Change vessel direction 180 degrees within two boat		
		lengths and establish a steady course		
		*In a light boat, land the vessel at a safe speed with no		
		headway at moment of contact while:		
		1) Maneuvering against the current		
		2) Maneuvering with the current		
D.2.	Х	Maneuver tow in high wind		
		*On a vessel or in a simulator, with at least one barge in tow,		
		in a crosswind of sufficient strenght to affect the safe		
		operation of the vessel, but not less than 10 MPH, maintain a		
	1	steady course and speed for at least one mile		T
D.3.	X	Make tow		
		(Remove from common element list; keep in NC/O		
		TOAR, GL/I TOAR, and Limited TOAR; remove from WR		
-	-	TOAR)		
D.4.	X	Break tow		
		(Remove from common element list; keep in NC/O		
		TOAR, GL/I TOAR, and Limited TOAR; remove from WR		
D.E		TOAR)		
D.5. D.6.		Get underway, pushing ahead Get underway, towing alongside		
D.6. D.7.		Maneuver tow with following current		
D.7. D.8.		Maneuver tow against current		
D.8. D.9.		Maneuver in high water		
D.9. D.10.		Maneuver in low water		
D.10. D.11.		Land with current		
D.11. D.12.		Land against current		
D.12. D.13.		Moor to piling, cell, or dock		
5.13.		into ito piling, cell, of dock		
		Dules of the Book		
E.		Rules of the Road		
E.1.		Apply the Rules of the Road in the following situations:		
E.1.a.	X	a. Meeting while pushing ahead, and/or		
	X	Meeting while towing astern		
E.1.b.	X	b. Crossing while pushing ahead, and/or		

	X	Crossing while towing astern	
		c. Overtaking another vessel while pushing	
E.1.c.	X	ahead, and/or	
	Х	Overtaking another vessel while towing astern	
E.1.d.	Х	d. Being stand-on vessel	
E.1.e	Х	e. Being give-way vessel	
E.1.f.	Х	f. Operating in restricted visibility	
E.1.g.	х	g. Properly lighting towing vessel and tow while pushing ahead, and/or	
	х	Properly lighting towing vessel and tow while towing astern	
E.1.h.	х	h. Provide proper sound and light signals (passing, fog, danger, etc.)	
E.2.		Apply Rules of the Road regarding passing upbound and downbound traffic (if applicable)	
F.		Safety and Emergency Response	
F.1.	T	Describe procedures to be followed in response to:	
F.1.a.	Х	a. Steering failure	
F.1.b.	Х	b. Loss of electrical power	
F.1.c.	Х	c. Loss of propulsion	
F.1.d.	Х	d. Collision/allision	
F.1.e.	Х	e. Grounding	
F.1.f.	Х	f. Personnel injury	
F.1.g.	Х	g. Oil or hazardous substance spill	
F.2.	Х	Conduct man overboard drill	
F.3.	Х	Conduct fire drill and instruction per 46 CFR 27.355	
F.4.	Х	Describe procedures for abandoning ship	
F.5.	Х	Describe procedures for use of general alarm	
F.6.	х	Describe procedures for use of all on-board safety equipment	
	1	<u> </u>	
G.		Environmental Protection	
G.1.		Describe procedures for disposal of:	
G.1.a.	Х	a. Garbage	
G.1.b.	Х	b. Sewage	
G.1.c.	Х	c. Bilge slops	
G.1.d.	X	d. Regulated waste	

Designated Examiner:		
Printed Name		
Signature		

Coast Guard License Number		
Designated Examiner:		

Towing Safety Advisory Committee [Enclosure (4)]

Jeffrev E. Parker

Allied Transportation Company

Chairman

P.O. Box 717 Norfolk, Virginia 23501

April 30, 2001

Docket Management Facility
U.S. Department of Transportation (DOT)
Room PL-401
400 Seventh Street, S.W.
Washington, D.C. 20590-0001

Re: **USCG-2000-6931**

Supplemental Notice of Proposed Rulemaking

Fire-Suppression Systems and Voyage Planning for Towing Vessels

Dear Sir or Madam:

The Towing Safety Advisory Committee ("TSAC") submits the following comments on the Supplemental Notice of Proposed Rulemaking, "Fire-Suppression Systems and Voyage Planning for Towing Vessels," 65 Federal Register 66,941 (Nov. 8, 2000) ("SNPRM"). TSAC's Working Group on Fire Suppression and Voyage Planning, which in various forms has been involved with all of the rulemaking initiatives arising from the *Scandia/North Cape* oil spill in 1996, developed these comments. These comments were approved at a meeting of the full TSAC on April 30, 2001, by a vote of 9 to 1, with 10 of the 16 members of TSAC participating.

We have divided these comments into two sections: The first addresses the portion of the SNPRM dealing with Voyage Planning and the second addresses the portion of the SNPRM dealing with Fire Suppression.

I. VOYAGE PLANNING

TSAC notes that, with certain exceptions, the SNPRM incorporates many of the suggestions made by TSAC in previous reports or input provided to the project managers. We also note that the SNPRM does not allow towing companies as much flexibility in determining how to implement the voyage planning requirement, in that the rulemaking appears to make consideration of all listed categories of information in proposed Section 164.80(c) mandatory. TSAC believes that a voyage plan should consider all of the categories of information even if a company recognizes that for any particular voyage or trip some of the required considerations might not apply. We discuss this issue further below.

TSAC's comments on voyage planning address eight sub-topics: (1) applicability of the voyage planning requirements to inland operators; (2) whether it should be mandatory to consider all of the categories of information included in proposed Section 164.80(c)(1) through (9); (3) whether the voyage plan must be a written document; (4) the definition of a "voyage," particularly as applied to inland towing vessels; (5) the duty to consider "environmentally sensitive areas" in formulating a voyage plan; (6) the definition of "substantial deviation"; (7) elimination of the 12-hour threshold for application of the voyage planning requirement; and (8) interface between the proposed voyage planning rule and the First Coast Guard District Regulated Navigation Area ("RNA") requirements for voyage planning.

A. Applicability

The applicability of the voyage planning requirement to inland towing vessel operators has engendered considerable controversy among TSAC members. In proposed Section 164.80, the SNPRM requires the owners, operators and masters of all towing vessels employed to tow a barge to undertake voyage planning at the start of any voyage of 12 hours or more:

(c) The owner or operator, and the master, of each towing vessel employed to tow a barge or barges must ensure the development of a voyage plan for each intended trip or voyage with the barge or barges, on the navigable waters of the United States, as defined in 33 U.S.C. 1222(5). The voyage plan must take into account all pertinent information, and be complete before the vessel embarks on a trip or voyage of more than 12 hours. The master must check the planned route for proximity to hazards and known environmentally sensitive areas (noted on charts or maps) before the trip or voyage starts. During a trip or voyage, if anyone in authority decides to deviate substantially from that route, then the master or mate must ensure the development of a plan for the new route before the vessel does deviate from the plan for the current route.

Some TSAC members have expressed the concern that the requirements of proposed Section 164.80(c) already are mandated by one regulation or another and questioned why we need a new requirement at all. At the same time, representatives of inland operators acknowledged that their companies already take most or all of the categories of information in proposed Section 164.80(c) into account.

The consensus of TSAC is that, with some further elaboration and detail provided in a Navigation and Vessel Inspection Circular ("NVIC") as to how the Coast Guard will apply the voyage planning requirement on a geographic or regional basis, TSAC should support the applicability of the voyage planning requirement to inland operators. TSAC arrived at this consensus by a vote of 9 to 6 at its March 15, 2001 meeting, albeit with continuing opposition by a substantial minority of members. There is no dispute that the Coast Guard should apply the voyage planning requirement to coastal operators.

TSAC considered at its April 30 meeting a motion to exclude from the voyage planning requirement towing vessels operating exclusively on Western Rivers; however, this motion failed for lack of a simple majority on a 5 to 5 vote. The tie vote indicates the continuing split among TSAC members as to the appropriateness of applying the voyage planning requirement to inland river operations.

With due respect to the minority position taken by some of our members, TSAC

recommends that, to clarify the applicability of the voyage planning requirement, the explanation currently provided on page 66942 of the preamble to the SNPRM as to which towing vessels are exempted from the voyage planning requirement should be incorporated into the regulatory text of proposed Section 164.80(c) so that operators may avoid any conflicts in interpretation by field inspectors and boarding officers. In addition, TSAC voted unanimously at the April 30 meeting to recommend that the proposed rule be amended to exempt towing vessels engaged in harbor assist operations, with "harbor assist" defined as proposed in the draft NVIC on towing vessel licensing and manning.¹ Our recommendation is as follows [new text is in italics]:

(c) The owner or operator, and the master, of each towing vessel employed to tow a barge or barges, except a towing vessel engaged in assistance towing, harbor assist, pollution response, or fleeting duties in limited geographical areas, must ensure the development of a voyage plan for each intended trip or voyage with the barge or barges, on the navigable waters of the United States, as defined in 33 U.S.C. 1222(5). The voyage plan must take into account all pertinent information, and be complete before the vessel embarks on a trip or voyage

B. Section 164.80(c)(1) - (9) Categories of Information

The SNPRM provides that each voyage plan "must consider" (emphasis added) the following:

- (1) Applicable information from up-to-date nautical charts and publications including Coast Pilot, Coast Guard Light List, and Coast Guard Local Notice to Mariners for each port of departure and for each port of call (destination);
- (2) Current and forecasted weather, including visibility, wind, and sea state from each port of departure to each port of call;
- (3) Data on tides and tidal currents for each port of departure and destination, as well as for ports of call, and on river stages, with forecasts, if applicable;
- (4) Forward and after drafts of the areas;
- (5) Appropriate pre-departure checks;
- (6) Calculated speeds and estimated times of arrival at proposed waypoints;
- (7) Communication contacts at Vessel Traffic Services (if applicable), bridges, and facilities, and port-specific requirements for VHF radio;
- (8) Any standing orders (for instance, closest points of approach, special conditions, and critical maneuvers); and
- (9) Whether the vessel has sufficient power to control the tow under all foreseeable circumstances.

¹ The draft NVIC on "Licensing and Manning for Officers of Towing Vessels," distributed at TSAC's March 14-15, 2001 meeting, defines "harbor assist" to mean "the use of a towing vessel during maneuvers to dock, undock, moor, or unmoor a vessel or to escort a vessel with limited maneuverability."

TSAC believes that the words "must consider" imply a mandatory obligation to consider and document all categories of information listed above, whether such information is relevant or not to the planned voyage or trip. While there was much discussion within TSAC about whether "must consider" means mandatory, we believe that the intent of the regulation and the position of TSAC in not having a "one size fits all" regulation is better served by changing "must consider" to "should consider, as appropriate." TSAC also recommends retention of the mandatory nature of the language requiring the owner, operator and master to prepare a voyage plan (i.e., master "must ensure the development of a voyage plan").

C. Whether the Voyage Plan Must Be a Written Document

TSAC notes that the SNPRM does not require the preparation of a written or formal voyage plan. In this instance, the SNPRM allows each company the flexibility to determine whether some kind of written voyage plan or other documentation (such as a voyage planning checklist) is needed to ensure its ability to prove compliance with the regulatory requirement. Some members of TSAC have expressed the position that a written document is essential and is the only way to prove that the master has prepared a voyage plan, but the majority of TSAC members are comfortable with preparation of a voyage plan that is not written. We recognize that it may be difficult after an incident already has occurred to prove the existence of a voyage plan if not in writing, but that companies should decide for themselves how to best comply with the voyage planning requirement. This is in keeping with previous recommendations of TSAC that the Coast Guard should not require formal written policies or documents. Therefore, TSAC recommends that the Coast Guard explicitly acknowledge in the regulatory text that a separate written voyage plan is not required. Our recommendation is as follows [new text is in italics]:

§ 164.80 Tests, inspections, and voyage planning.

* * *

(c) *** The voyage plan, which need not be a separately written document, must take into account all pertinent information, and be complete before the vessel embarks on a trip or voyage

In addition, it is not clear whether Section 164.78(b), as currently codified, would require the fact that a voyage plan has been prepared -- in whatever form -- to be logged in the vessel's logbook or other record carried on board the vessel. Section 164.78(b) currently refers to "inspections and tests required by § 164.80" that must be logged. Voyage planning obviously is not an inspection or test, but it is unclear whether the generic reference to "§ 164.80" in Section 164.78(b) would include voyage planning once a final rule requiring voyage planning is adopted. This must be clarified.

D. <u>Definition of "Voyage"</u>

There have been a significant number of questions about just what is a voyage, especially when undertaken on inland rivers where the means to differentiate between the end of one voyage and the start of another is not always obvious. TSAC recommends that a definition of "voyage" be developed with respect to geographic areas or types of towing operators or operations and discussed in the NVIC that the Coast Guard anticipates developing next, once the rulemaking is in place.

E. Consideration of "Environmentally Sensitive Areas"

The SNPRM provides that the master must check the planned route for proximity to hazards and "known environmentally sensitive areas" (noted on charts or maps) before the trip or voyage starts. TSAC is concerned that the reference to "(noted on maps and charts)" may be too vague. For instance, Area Contingency Plans developed under the Oil Pollution Act of 1990 may contain maps of environmentally sensitive areas; however, not all towing vessel operators are involved in the transportation of oil and petroleum products and therefore would have no cause to consult these maps or, in fact, have any knowledge of their existence. TSAC recommends that only those typical nautical charts and maps that a mariner generally consults to determine the existence and location of known hazards to navigation, and which are required to be on board the vessel, must considered by the master. By making this recommendation, TSAC does not wish to imply that the master should omit consideration of environmentally sensitive areas if known to that master. But this information should not be included in the "one size fits all" laundry list of information that must be considered in voyage planning unless those areas are designated on the specific maps and charts the master is required to consider.

Further, since proposed Section 164.80(c)(1) already incorporates a requirement for the master to consider applicable information from nautical charts and publications, TSAC recommends that a reference to "paragraph (1) below" be added after the parenthetical "(maps and charts") and that the language "and known environmentally sensitive areas" be deleted. This will ensure that masters are not penalized for failing to consider maps and/or charts that they did not know even existed and otherwise would have no reason to know. TSAC also recommends that a cross-reference to those existing provisions in the current regulations which require current charts and maps (i.e., Sections 164.33 and 164.72, as applicable) be included in the regulatory text

Our recommendation is as follows [new text is in italics; deleted text is struck through]:

* * *

- (c) *** The master must check the planned route for proximity to hazards and known environmentally sensitive areas (noted on charts or maps required to be consulted by paragraph (1) below) before the trip or voyage starts. During a trip or voyage, if anyone in authority decides to deviate substantially from that route, then the master or mate must ensure the development of a plan for the new route before the vessel does deviate from the plan for the current route. Each plan must consider—
- (1) Applicable information from up-to-date nautical charts and publications including Coast Pilot, Coast Guard Light List, and Coast Guard Local Notice to Mariners for each port of departure and for each port of call (destination), as required by either § 164.33 or § 164.72, as applicable; . . .

F. Definition of "Substantial Deviation"

TSAC members have discussed whether additional explanation of what is considered to be a "substantial deviation" is needed, but we recommend retaining the regulatory language as is currently proposed concerning deviations and the need to prepare a new voyage plan for the

deviated route. If additional explanation is needed, TSAC recommends that it be included in the voyage planning NVIC.

G. <u>12-Hour or More Voyages</u>

TSAC questions the justification for applying voyage planning only to vessels on voyages of more than 12 hours. Some voyages even shorter in length may be considered more hazardous and risky than voyages lasting 12 hours or more. TSAC recommends that the reference to voyages over 12 hours be deleted, as follows [deleted text is struck through]:

§ 164.80 Tests, inspections, and voyage planning.

* * *

(c) * * * The voyage plan must take into account all pertinent information, and be complete before the vessel embarks on a trip or voyage of more than 12 hours.

H. <u>Clarification of Interface with First District Rule</u>

In December 1998, the Coast Guard published a Final Rule establishing a Regulated Navigation Area ("RNA") for all navigable waters within the First Coast Guard District (63 Federal Register 71,764; Dec. 30, 1998). The Final Rule imposes a duty on operators of towing vessels towing tank barges within the waters of the First Coast Guard District to engage in voyage planning. This requirement now is codified at 33 C.F.R. § 165.100(d)(3). The SNPRM does not specify whether the voyage planning requirement proposed for § 164.80(c) is intended to supersede or complement the voyage planning requirement in place in First District waters. The interaction between the SNPRM and the RNA vis-à-vis voyage planning must be clarified. TSAC recommends that the Coast Guard clarify that the SNPRM would supersede the voyage planning requirement in the RNA.

II. FIRE SUPPRESSION

The SNPRM substantially changes the direction and approach of the Notice of Proposed Rulemaking, which was published in 1997 (62 Federal Register 52,057; Oct. 6, 1997) ("NPRM"). The NPRM proposed fire suppression measures for all towing vessels, but did not require the mandatory installation of a fixed fire suppression system. Instead, the NPRM proposed allowing the installation of manual alternatives comprised of fire detection systems, semi-portable fire extinguishers, training of crewmembers, and fixed or portable fire pumps. The SNPRM now rejects completely the manual system approach and mandates that all new and existing towing vessels (not just those new vessels of 24 meters or more in length) have a fixed fire suppression system installed. There is no distinction between new and existing vessels; in size of towing vessels; or in types of barges or cargoes towed.

TSAC supports requirements that have the real potential to help save lives and prevent personal or property damage. However, any new requirements must be cost-effective and must

address a need for which current regulations arguably may be deficient. While we appreciate the statutory directive to consider the requirement for fire suppression systems, we believe the Coast Guard has the flexibility and discretion to adopt other measures that will accomplish just as much if not more than a fixed fire suppression system that comes with a very high price tag for each and every towing vessel operator in this country.

As discussed below, TSAC does not support a requirement that a fixed fire suppression system be retrofitted on all existing towing vessels – even with a five-year "grace period." The Committee does not believe that a fixed fire suppression system will be effective on those towing vessels whose engine rooms cannot be made airtight. Air tightness is best addressed at the design stage before a vessel is built – not through an undemonstrated retrofitting requirement. Trying to make airtight those engine rooms on existing towing vessels that were designed to have holes and spaces will pose considerable structural design and feasibility difficulties for such towing vessels. In contrast to statements made in the preamble to the SNPRM, TSAC does not believe it is simply a matter of adding more bottles of CO₂ or halon to make up for the lack of airtightness.

The cost and casualty data presented in the Regulatory Assessment, which TSAC also has analyzed, simply do not support the propositions for which the Coast Guard has set forth such data. The casualty analysis does not support a need for mandatory fixed fire suppression systems and the cost data is so faulty that it fails to demonstrate the cost-effectiveness of mandating fixed fire suppression systems. These concerns are addressed further below.

TSAC believes the Coast Guard must step back and re-focus on what a fire suppression system is intended to accomplish. We believe the emphasis should be on dealing with fires in their insipient stage and what equipment is needed to fight any engine room fires at that stage. Given the new equipment requirements now adopted in the Fire Protection Measures, Coast Guard should re-evaluate whether any residual need for a fixed fire suppression system exists, particularly in the face of a lack of compelling casualty data supporting mandatory installation of fixed fire suppression systems, and in the face of cost data suggesting that cost connected with the SNPRM's mandatory fixed systems will severely outweigh any benefits to be gained from this new requirement.

A. Application

Although TSAC questions the need and justification for the imposition of mandatory fixed fire suppression systems on existing towing vessels, TSAC does not oppose the requirement as applied to new towing vessels (which should be defined as towing vessels for which the contract for construction is entered into after the effective date of the regulations), except those to be operated exclusively on inland rivers and canals. TSAC approved a motion at its April 30 meeting by a vote of 8 to 2 to recommend exclusion of new towing vessels operating exclusively on rivers and canals from the requirement to have installed a fixed fire suppression system. With respect to existing towing vessels, our recommendation is that the Coast Guard should revert to the approach included in the NPRM, which allows use of manual fire suppression systems.

TSAC believes that the application of the fire suppression system requirements to new and existing towing vessels involved in ship and harbor assist (docking and undocking), fleeting duties, escort duties, and operation in limited geographical areas must to be clarified. In particular, TSAC recommends that the definition of "harbor assist" in the draft licensing NVIC be included in the regulatory text, and that a definition of "new towing vessel"; "limited geographical areas"; and "fleeting duties" likewise be included in the fire suppression regulatory text. Because a fire suppression system requirement may involve structural alterations and not just operational alterations (as would voyage planning), it is not sufficient to address these definitional concerns in a NVIC left for another day. The towing industry must be certain as to which vessels will require these systems and which will not.

B. Justification and Need for Fixed Fire Suppression Systems

TSAC believes it is important to re-focus on the applicable statutory authority that instigated this rulemaking. The Coast Guard Authorization Act of 1996 was enacted in response to the SCANDIA/NORTH CAPE oil spill in January 1996. Section 902 of the Act directs the Secretary of Transportation, in consultation with TSAC, to prescribe rules on fire suppression systems or other measures for towing vessels. The authority is mandatory for towing vessels towing tank barges, but it is discretionary for all other towing vessels. However, even the mandatory statutory authority for towing vessels towing tank barges, now codified at 46 U.S.C. § 4102(f), does not mandate the use of fixed fire suppression systems on any towing vessel. Rather, the law directs the Coast Guard to require the use of "a fire suppression system or other measures to provide adequate assurance that fires on board towing vessels can be suppressed under reasonably foreseeable circumstances." Thus, for towing vessels towing non-selfpropelled tank barges, the law directs the Coast Guard to require either a fire suppression system or other measures; it does not mandate the installation of a fixed fire suppression system. The statutory language was crafted carefully to allow the Coast Guard to consider various alternatives to a fixed fire suppression system, taking into account "the characteristics, methods of operation, and nature of service of towing vessels."

By adopting a solitary requirement for fixed fire suppression systems, regardless of length of the vessel, cargoes towed, and operational differences, the Coast Guard has abdicated its responsibility to take operational or service characteristics of towing vessels into account. The Coast Guard's approach also ignore the towing industry's excellent safety record, which does not merit the imposition of the exorbitant costs that a mandatory fixed fire suppression requirement would entail.

In addition, TSAC does not believe a need for the fixed system approach adopted in the SNPRM has been demonstrated. We believe that the Regulatory Assessment conducted by the Coast Guard is faulty, contains erroneous assumptions that are not supported by the relevant data, and severely underestimates the totality of costs that will be incurred when retrofitting fixed fire suppression systems on existing towing vessels. Moreover, the Coast Guard has failed to consider all of the technical and design issues that may arise in connection with installation of a fixed fire suppression system on a towing vessel whose engine cannot be made airtight.

It is important to note, and TSAC agrees, that a fixed fire suppression system should be a measure of last resort when all other control measures have been unsuccessful in extinguishing a fire. Having said that, TSAC agrees that requiring the installation of a fixed fire suppression system on a new towing vessel is appropriate. The costs of design and installation can be integrated into other costs of construction and thereby achieve some level of cost efficiency. With existing vessels, however, TSAC does not believe that a fixed suppression system always will be a cost-effective measure. Moreover, from a safety standpoint, TSAC does not believe that the casualty data upon which the Coast Guard has relied demonstrates the need for a fixed suppression system or that it will provide any measurable improvement of safety, or reduction in the risk of personal injury, property damage, or death to crew members or other personnel.

1. Cost/Benefit Data Do Not Support the SNPRM Approach

The Regulatory Assessment for this SNPRM states that the requirement to install a fixed fire suppression system ("FFES") would serve to reduce the number of uncontrolled engine room fires. The Regulatory Assessment also states that, when fully implemented, the SNPRM should significantly reduce the likelihood of deaths, injuries and environmental and property damage resulting from towing vessel casualties.

In terms of casualty data, TSAC believes that the Regulatory Assessment fails to indicate a need for the singular fixed fire suppression system approach proposed by the Coast Guard in the SNPRM.

In terms of cost-benefit data, TSAC believes that that the Regulatory Assessment fails to substantiate that benefits to be gained outweigh the substantial costs of the proposal. The Regulatory Assessment states that, for the fixed fire suppression systems, the present value of the cost over the 13-year period of analysis would be \$109,809,202 and that the present value benefit would be \$23,467,869 -- for a net cost to industry of \$86,341,333. Out of the entire net present value of the fire suppression system requirement, only \$422,221 is attributable to avoided personal injuries, and this amount is overstated due to an inaccurate statement of the number of injuries that actually occurred as a result of engine room fires during the analysis period. Moreover, the Regulatory Assessment fails to state how much of the damages incurred as a result of the 105 casualty cases reviewed was due to pollution damage for which the benefits from use of a fixed fire suppression system would not accrue to towing vessels not towing oil barges. The benefits to be gained from pollution avoided cannot be applied to towing vessels towing grain or other non-oil cargoes. To do otherwise results in a faulty cost-benefit analysis.

2. The Regulatory Assessment Substantially Underestimates Costs for Existing Vessels

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² As we note below, the Regulatory Assessment states that there were 12 injuries resulting from 6 casualty cases; however, a review of the 105 casualty cases indicates that only 7 injuries resulted from these 6 cases. Because the Coast Guard calculated the value of injuries avoided based on the number of injuries which occurred (and whether they were minor or serious), the Coast Guard has overstated the present value of all injuries avoided.

TSAC does not take issue with the estimates as applied to new towing vessels. However, TSAC believes the Regulatory Assessment prepared for the SNPRM severely underestimates the cost to install a fixed fire suppression system on an existing towing vessel. Some TSAC members have obtained estimates to install a fixed fire suppression system on some of their existing vessels and found that the cost, particularly for the larger towing vessels, approximates on average an amount closer to the highest amount predicted for these towing vessels rather than the average cited in the Regulatory Assessment.

The Regulatory Assessment estimates that the cost to install a fixed fire suppression system on towing vessels is approximately \$25,000 for a towing vessel under 24 meters in length and \$55,000 for a towing vessel over 24 meters in length. The Regulatory Assessment assumes no difference in cost between installation of such a system on a new towing vessel versus installation by retrofitting on an existing towing vessel. TSAC believes that an assumption that costs are comparable between installation on new and existing towing vessels is naïve and uninformed.

Several TSAC and Working Group members submitted estimated costs to retrofit existing vessels with a fixed fire suppression system. The estimates we have received indicate that the Coast Guard's cost estimates may be significantly understated. Moreover, the Coast Guard's cost data fail to take into account some cost components, such as design of structural alterations, electrical work, new storage lockers, need for emergency generators, and the like, that may increase the overall cost of retrofitting by a significant amount. We anticipate that these members will submit comments directly to the docket setting forth in detail the estimates they have received, but a summary of these estimates is included in Attachment III to these comments. This summary shows:

- The average cost of installation of the fixed fire suppression system for most towing vessels is approximately \$68,314.
- The costs of design and structural alterations can be as much as \$40,000 for a large towing vessel or a towing vessel originally built with many holes and spaces in the engine room or an engine room not large enough to accommodate the additional bottles needed for a fixed system.

3. <u>Costs For Revenue Lost Are Based on a False and Inappropriate Assumption</u>

The Regulatory Assessment assumes that operators with more than one towing vessel will face less costs in out-of-service time (i.e., lost revenue) on a sliding scale than operators with only one towing vessel. For instance, the Regulatory Assessment states that an owner with more than one towing vessel may be able to put another vessel into service. There is no support stated for this assumption other than the presumptive reasoning itself supplied by the Coast Guard.³

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³ We are also not convinced that this assumption meets the requirements of OMB Circular No. A-94 ("Guidance and Discount Rates for Benefit-Cost Analysis of Federal Programs") (1992), or the guidance set forth in "Regulatory Impact Analysis Guidance," REGULATORY PROGRAM OF THE UNITED STATES GOVERNMENT.

Most operators do not have extra towing vessels tied up and on standby just waiting to be put in service whenever another vessel is taken out of service. The Regulatory Assessment further states that the revenue lost by one vessel could become the revenue gained by another vessel and the owner might not lose revenue. Again, this is a false and deceptive assumption. The cost to an operator from lost revenue is still a cost – whether the operator is able to make it up in some other operation or not.

The Regulatory Assessment also misstates the number of existing towing vessels each year that would require the installation of a fixed fire suppression system. Out of the total number of existing documented towing vessels (6641) in 1999, ⁴ the Regulatory Assessment calculates the number (4467) that would not be exempt from the FFES requirement as an assist tug or a tug involved in pollution response. The Regulatory Assessment then assumes, without any stated foundation, that 23% of these vessels already have a fixed fire suppression system installed. The remainder (3440) would be required to install a fixed system within the 5-year grace period. Of the remainder, the Regulatory Assessment calculates that 68% (or 2339) are less than 24 meters in length and 32% (or 1101) are 24 meters or more in length. The Regulatory Assessment then calculates the number of vessels per year (688) that would be installing a fixed fire suppression system.⁵ After discounting this number for new vessels put into service that are replacements for towing vessels taken out of service, the number of towing vessels taken out of service for installation would be 670.

The Coast Guard assumed that the daily revenue lost by a small towing vessel would be \$4000 and the daily revenue lost by each large towing vessel would be \$9000. The Regulatory Assessment further estimates that out-of-service time would be four days for a small towing vessel and 6 days for a large towing vessel.⁶ This amounts to lost revenue for a small towing vessel of \$16,000 and lost revenue for a large towing vessel of \$36,000.

Since the Regulatory Assessment does not provide any empirical evidence to support the assumption made by the Coast Guard that the ability to avoid lost revenue is dependent upon the number of towing vessels owned, TSAC recommends that the full amount calculated on a vessel-be-vessel basis for lost revenue should be set forth. On this basis, using the Coast Guard's own numbers, the annual cost in lost revenue would be as follows:

# vessels total		percent large or small		# vessels large or small		daily revenue lost		total revenue lost annually
670	X	68%	=	456	X	\$36,000	=	\$16,416,00

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⁴ TSAC notes that in the July 1999 Regulatory Assessment for Fire Protection Measures for Towing Vessels [USCG-1998-4445], the Coast Guard estimated that there were a total of 7,930 documented towing vessels. It is difficult to see how there could be a discrepancy of 1289 towing vessels when the same data from the same database is being used to analyze two different, but related rulemakings.

⁵ The Regulatory Assessment then discounts this annual number by another 18 vessels to 670, claiming that 18 of the 688 vessels each year would be new vessels for which there would not be any lost revenue.

⁶ One of TSAC's members estimates that out-of-service time for its towing vessels, particularly those requiring substantial structural modifications, would be an additional 14 ½ days beyond normal drydocking time. Normal drydock time for this operator is 10 days.

								0
670	X	68%	=	215	X	\$16,000	=	\$3,440,000
						TOTAL	=	\$19,856,00 0

The above total annual lost revenue compares with annual lost revenue of \$1,305,696 set forth in the Regulatory Assessment. Therefore, if the Coast Guard's assumption is erroneous that lost revenue is dependent upon the number of vessels owned, and we believe it is, then the Coast Guard's cost analysis for lost revenue is understated by a factor of more than 15.

4. <u>Casualty Data Do Not Support the Requirement for Fixed Systems</u>

The SNPRM states that the purpose of changing the approach from manual fire fighting equipment to fixed fire suppression systems is safety of the crews of towing vessels. However, in a vast majority of the casualty cases analyzed by the Coast Guard in the Regulatory Assessment, engine room fires were extinguished without death or any personal injury, and without the use of fixed fire suppression systems. Thus, there does not appear to be a need for the approach adopted by the Coast Guard in the SNPRM.

In its Regulatory Assessment, the Coast Guard makes the following assumptions regarding personal injury and environmental damage:

- 1. The Regulatory Assessment assumes that 42% of losses would be reduced by installation of a fixed fire suppression system.
- 2. During the 1992 to 1996 analysis period, the Regulatory Assessment identifies 19,791 barrels of oil spilled as a result of 5 engine room fires. However, the vast majority of the oil spilled, i.e., 19,714 barrels, resulted from the SCANDIA/NORTH CAPE incident. Eliminating this one anomalous incident from the analysis indicates that only 78 barrels were spilled as a result of engine room fires.

TSAC has analyzed the 105 engine room fire casualty cases referenced in the Regulatory Assessment. These cases occurred during 1992 to 1996. TSAC concludes that such data do not support the need for mandatory installation of fixed fire suppression systems on towing vessels. Our analysis is set forth in Attachments I and II to these comments. Attachment I is a summary of TSAC's analysis of the 105 casualty cases referenced in the Regulatory Assessment, and

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⁷ TSAC notes that the barrels spilled from the NORTH CAPE – 19,714 barrels – have been used repeatedly to justify the imposition of four different regulatory measures: Emergency Control Measures [USCG-1998-4443]; Fire Protection [USCG-1998-4445]; Voyage Planning [USCG 2000-6931] and Fire Suppression [USCG-2000-6931]. If the alleged benefits in terms of effective pollution prevented from all four of these measures are quantified, the total number of cumulative barrels avoided or pollution prevented from the NORTH CAPE incident alone would be 26,259 barrels – or 6,545 more barrels than what actually was spilled during the NORTH CAPE incident.

⁸ TSAC notes that all of these casualties occurred before the requirement for firefighting training was adopted in 1996.

Attachment II is a case by case listing of each casualty, based on both the individual casualty reports themselves and the Coast Guard's Regulatory Assessment, indicating whether the fire was extinguished, the number of injuries which occurred, the amount of damages sustained, etc. Our analysis shows the following:

- Approximately 80% of the engine room fires cited in the Regulatory Assessment (83 out of 105 cases) were extinguished using manual or portable equipment or the services of a local fire department without use of a fixed fire suppression system.
- Only 7 injuries resulted from 6 of the casualty cases.⁹
- No deaths resulted from any of the casualty cases.
- Approximately 60% of the cases (63 out of 105 cases) resulted in damages of less than \$10,000 (compared with an average fixed system cost per vessel of either \$25,000 or \$55,000 using Coast Guard estimated costs).
- Less than 5% of the cases (5 out of 105 cases) resulted in any pollution.
- Excluding barrels spilled from the NORTH CAPE, only 78.21 barrels of oil were spilled as a result of 4 cases, and in each of those 4 cases, the largest amount spilled was 36 barrels.
- If the 15% reduction in losses due to voyage planning is taken into account with the 42% reduction in losses due to fixed fire suppression systems, the overall effective rate of reduction drops to 35.7% [(100% 15%) x 42% = 35.7%)].

Even the Coast Guard's own analysis of the potential benefits of fixed fire suppression systems indicates that such systems would have reduced losses by 10% or less in 54% of the cases (and this percentage includes the NORTH CAPE incident).

5. A Fixed System Would Not Have Prevented the North Cape Oil Spill

The preamble to the SNPRM explains, in the "Background and Purpose" section, the fire suppression rules result from legislation adopted in 1996 after "the tugboat SCANDIA, towing the oil barge NORTH CAPE, caught fire five miles off the coast of Rhode Island. The crew could not control the fire, and without power they were unable to prevent the barge carrying 4 million gallons of oil from grounding and spilling about a quarter of its contents into the coastal waters." The second sentence in this explanation is critical, yet appears to be an oversight by the Coast Guard in its focus on the use of fixed fire suppression systems in this SNPRM. Paraphrasing the preamble, it states that the crew could not control the fire **and without power** they were unable to prevent the grounding and subsequent oil spill. The Coast Guard in this

⁹ The Regulatory Assessment claims that 12 injuries – 7 minor and 5 serious – occurred in the 105 cases. However, Appendix B of the Regulatory Assessment only lists 7 injuries total. If the 35.7% reduction in injuries is applied to this number, the result is a reduction of less than 3 injuries total – at a cost of almost \$110 million using the Coast Guard's own numbers.

SNPRM has proposed an approach which the agency asserts would enable the crew to control any engine room fire that may break out, but the approach chosen would also cause the towing vessel to lose all power. Thus, if the SCANDIA had installed a fixed fire suppression system before the incident in 1996, the crew may have been able to bring the fire in the engine room under control, but the oil spill still likely would still have resulted. That is because the tugboat would have lost power when the fixed fire suppression system was triggered and, given the gale storm conditions at the time of the incident, the crew would have been unable to keep the NORTH CAPE from grounding.

Thus, the very factor that ensured the occurrence of the NORTH CAPE spill – the loss of the SCANDIA's power – now is effectively being mandated by the Coast Guard through the approach adopted in the SNPRM: mandatory installation of fixed fire suppression systems on all towing vessels. TSAC believes the loss of power when a fixed fire suppression system is triggered must be given further consideration before it is mandated for all towing vessels.

Moreover, given the length of time between discovery and the time the fixed fire suppression agent would have been released, major components of the engine room still would have been disabled. While the SCANDIA crew may have been able to remain on board the tug, the NORTH CAPE's inability to anchor would have remained a major factor in causing the pollution incident.

C. <u>Structural Difficulties and Design Problems Have Not Been Adequately</u> Considered

TSAC believes that design and structural alteration costs and problems have not been adequately considered by the Coast Guard in adopting a fixed fire suppression system requirement rather than a manual firefighting system. For instance, TSAC has found no discussion in the preamble of any of the following problems that have been identified by our members and working group participants:

- Where would an operator locate all of the CO₂ bottles that would be required for installation of a CO₂ system (one operator estimated he would need to locate 19 bottles of CO₂ for a fixed system he was planning to install) if the engine room is too small to accommodate them;
- Are new stability concerns created by the structural alterations that may be needed for installation of a new fixed fire suppression system?
- Does the installation of a fixed system require the installation of automatic dampers to close off fans and blowers (automatic louvers are very expensive) or will manual fans and blowers be acceptable?
- Does the proposal assume the use of automatic door closers and, if so, are these supposed to be fire doors?
- If fire doors are expected to be used, who is supposed to close them?

- Are there any limits on how long the piping for the fire suppression agent can be?
- What are the estimated costs to install fire doors?
- What are the estimated costs for ABS plan approval for ABS-classed vessels, for engineering and drawing costs, for bulkhead penetrations, for wiring diagrams, and for other piping diagrams and plans?

D. Additional Concerns

TSAC members have identified the following additional concerns that must be addressed by the Coast Guard before any final rule on fire suppression systems is published:

- Will existing fixed fire suppression systems on existing vessels be grandfathered?
- Will the Coast Guard allow the use of fixed fire suppression agents that have been approved by IMO under SOLAS IV but not by the Coast Guard?
- What risk assessment has been conducted by the requirement to include a fixed fire suppression system that (such as with CO2) has the potential to significantly harm human beings?
- Since the generators for many towing vessels are located in the engine room, and would be adversely affected by triggering of a fixed fire suppression system, what is the cost in terms of additional risk of injury, death and property or environmental damage that may occur when all power to the towing vessel is shut-off during an engine room fire with a fixed fire suppression system?

E. Coast Guard's Original Approach in the NPRM is Recommended

In 1997, TSAC submitted Recommendation No. 106 to the Coast Guard. This recommendation proposed that the Coast Guard adopt fire suppression measures such as fire detection systems, semi-portable fire extinguishers, training of crewmembers, and fixed or portable fire pumps for the protection of existing towing vessels and for new towing vessels under 24 meters in length, regardless of cargoes transported. For new towing vessels 24 meters and over in length, TSAC recommended that these vessels be required to have a fixed fire pump, a remote main engine shutdown and fuel shutoff, and a fixed fire suppression system. The Coast Guard adopted this basic approach, with minor adjustments, in the NPRM published in October 1997. TSAC put a lot of work into this recommendation, giving serious and due consideration to personnel and safety issues and pollution prevention. We hate to think that our previous work was for naught. Moreover, these comments indicate that we have serious and strong concerns about the approach the Coast Guard has adopted in the SNPRM.

Except for the size threshold for new towing vessels, and except for equipment requirements already adopted in the final rule on Fire Protection Systems, TSAC recommends that the Coast Guard revert to the approach first proposed in the NPRM whereby existing towing

vessels could comply with fire suppression system requirements through either a fixed system or a manual system. Existing vessels should continue to have the option of employing manual firefighting measures unless and until the Coast Guard can demonstrate through its cost/benefit and casualty analyses that there are significant safety benefits and damage prevention gains to be made.

The statute requires the Coast Guard to consult with TSAC in undertaking its rulemaking. At no time prior to issuance of the SNPRM did the Coast Guard explain to TSAC why it was changing its course and adopting a singular requirement of a fixed fire suppression system rather than the option of manual fire suppression measures. The SNPRM similarly fails to a rational explanation. TSAC encourages the Coast Guard to continue working with us before this rulemaking is finalized so that the consultation mandates of the Act can be met and a satisfactory and justifiable rulemaking can result.

III. Final Recommendations

- 1. With respect to voyage planning, TSAC supports the provisions of the SNPRM with the changes we have set forth in section I above.
- 2. For both voyage planning and fire suppression, the Coast Guard must clarify the categories of towing vessels that are exempt from the requirements, including those engaged in assistance towing, harbor assist operations, pollution response, fleeting duties and those operating in limited geographical areas, by stating expressly such exemptions in the regulatory text.
- 3. With respect to fire suppression, TSAC supports the application of the provisions in the SNPRM only for <u>new</u> towing vessels, <u>except</u> those operating exclusively on inland rivers and canals.
- 4. Because the justification has not been demonstrated for adopting a requirement for installation of a fixed fire suppression system on existing towing vessels, TSAC does not support this requirement. TSAC believes the Coast Guard should reconsider this approach and instead provide the option to allow owners to install either a fixed fire suppression system or the list of equipment that was proposed initially in the fire suppression NPRM published in October 1997. While TSAC originally proposed in Recommendation No. 106 that these equipment requirements be applied only to towing vessels of 24 meters or longer in length, TSAC appreciates that the 1996 Coast Guard Authorization Act did not provide any exemptions based on length of the vessel; accordingly, we have no objection to the imposition of the requirements (not previously adopted) to all non-exempt existing towing vessels regardless of length.
- 5. The next rulemaking issuance for this docket should be either another supplemental notice of proposed rulemaking or an interim final rule with a request for further comments.

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TSAC appreciates the opportunity to provide these comments in furtherance of our charter as a safety advisory committee to the Coast Guard and the Department of Transportation for towing vessel safety.

Respectfully,

TOWING SAFETY ADVISORY COMMITTEE

Jeffrey E. Parker Chairman

TSAC ANALYSIS OF USCG Casualty Data--Engine Room Fires: 105 Cases

FIRES EXTINGUISHED / NOT EXTINGUISHED

	# Extinguished	# Not Extinguished	# Not Specified*	Total #	Percent
Inland	51	6	22	79	75%
Ocean/Coastal	13	5	8	26	25%
GRAND TOTALS:	64	11	30	105	100%
Percentage:	61%	10%	29%	100%	

^{*}Not Specified=the casualty reports provided in the docket did not state whether the fire was extinguished.

65% of all inland cases extinguished 28% of inland cases not specified as extinguished or not 8% of all inland cases not extinguished--only 6 cases

The fires that were extinguished were put out by crewmembers using portable fire extinguishers, fire pumps and hoses and/or with the help of local fire departments—without a requirement for fixed fire suppression system. (Among the 51 Inland cases, there was only one reported injury.)

19 of the 30 "Not Specified" casualties incurred damages equal to or less than \$8,500 and can reasonably be assumed to have been extinguished. (The next lowest damage amount is \$35,000.)

Adding the 19 "Not Specified" but assumed extinguished fires to the 64 extinguished fires, equals a total of 83 extinguished fires out of the 105 cases.

79% of the engine room fires were extinguished. (83/105)

INJURIES

No deaths resulted from any of the 105 cases.

There were only 7 injuries which occurred during 6 of the 105 engine room fires.

Note: Page 21 of the Regulatory Assessment says:

"Seven of the injuries were minor and 5 were serious. See Appendix B."

There is a footnote after this statement that reads: "The 12 injuries were from 6 casualty cases." However, our review of Appendix B, as mentioned above, indicates that there were only 7 injuries among 6 casualty cases.

TSAC Analysis (cont.)

DAMAGES

37 of the 105 cases (35%) resulted in damages valued at less than or equal to \$1,000. 12 of the 105 cases (11.4%) resulted in damages valued between \$1,001 - \$3,000. 8 of the 105 cases (7.6%) resulted in damages valued between \$3,001 - \$5,000. 6 of the 105 cases (5.7%) resulted in damages valued between \$5,001 - \$10,000.

63 of the 105 cases (60%) resulted in damages of less than \$10,000.

POLLUTION

Of the 105 casualties, only 5 resulted in pollution with a total of 19,792 barrels spilled. **Excluding the Scandia casualty, only 78.21 bbls were spilled.**None of the remaining 4 pollution incidents resulted in spills greater than 36 bbls.

(The Scandia/North Cape casualty spilled 19,714 bbls.)

EFFECTIVENESS OF FIRE-SUPPRESSION

Even the Coast Guard's own analysis of the potential benefits of fixed fire suppression system shows that such systems would have reduced losses by only 10 percent or less (including not at all) in 57 of the 103 engine room fires aboard towing vessels (54 percent). (There is no analysis for 2 of the 105 cases.)

Of particular interest is the Coast Guard's assessment of the benefits a fixed fire suppression system would have provided aboard the Scandia: The Coast Guard's analysis indicates that a fixed fire suppression system would have reduced the losses by only 10 percent in this case.

(See Appendix B and Page 15 of the Regulatory Assessment.)

SOURCES

Regulatory Assessment and Initial Regulatory Flexibility Analysis, SNPRM Towing Vessel Safety: Fire Suppression Systems and Voyage Planning for Towing Vessels (USCG-2000-6931-8)

Casualty Reports Supporting Appendix B of the Regulatory Assessment and Initial Regulatory Flexibility Analysis (USCG-2000-6931-17, USCG-2000-6931-18, USCG-2000-6931-19)

	I/O*	Waterbody	Case #	State	Fire Extinguished?	How? (Details)	Injuries	Damages (\$)	Barrels Spilled
1	1	Freeport Ship Channel	98	FL		Fire was extinguished within a couple of minutes.	0	05.000	0.00
2	I	Corpus Christi Ship Channel & Harbor	6	TX	Y	Crew extinguished fire quickly	0	2,000	0.00
3	I	New York Harbor Upper Bay/Off Con Hook, NJ	9	NY	Y	Tug's engineer attempted to extinguish the fire w/CO2 extinguisher	0	2,000	0.00
4	I	Corpus Christi Ship Channel & Harbor/Inner Harbor by OD-4	23	TX	Y	Fire was extinguished with B-II dry chemical extinguisher and water hose.	0	0	0.00
5	I	New York Harbor Upper Bay/Bayonne Marine Terminal	49	NJ	Y	Crew immediately extinguished the fire. Barge was safely moored.	0	2,000	0.00
6	I	Navigable Waters NEC/New Haven Harbor	56	СТ	Y	The chief engineer answered an alarm for a boiler fire. He alerted the crew and secured the boiler power. The tug's crew, local fire department and crew from a nearby barge extinguished the fire.	0 19,000		0.00
7	I	Houston Ship Channel	63	TX	Y	The fire was extinguished rapidly with a portable fire extinguisher.	0	100	0.00
8	I	Houston Ship Channel	67			UTV Mamaru was moored at GATX Galena Park Barge Dock #2. An attempt to extinguish fire by the crew was unsuccessful. GATX fire personnel arrived on scene and extinguished fire.	0	9,000	0.00
9	I	Galveston Ship Channel	82	TX	Y	Crew extinguished fire by use of fire extinguishers and fire hose. Local FD notified by assistance not needed.	0	5,000	0.00
10	I	Lower Mississippi River	1		Y	Timely and correct action by crew and proper placement of safety equip. Equipment extremely effective	0	500	0.00
11	Ι	Ohio River	4	ОН	Y	Local fire department extinguished fire when vessel pushed into river bank	0	500	0.00
12	ı	St. Mary's River	5	MI	Y	2 Portable B-II CO-2 used satisfactorily	0	20,000	0.00
13	I	Narragansett Bay	8	RI	Y	NS	0	900,000	0.00
14		Navigable Waters NEC/Clarence Straits	13	AK	Y	The fire was partially extinguished when a dry chemical extinguisher near the fire exploded. Crew members then extinguished the fire.	0	150,000	0.00
15	ı	Savannah River	14	GA	Y	Tug moved to CB3 where Garden City Fire Department put fire out. Crew was not able to access ship's fire pump, due to location in engine room	0	500,000	0.00
16	I	Ohio River	15	WV		2 Nearby M/V's tied off to MS Jan and secured her tow/commenced firefighting ops. Heavy smoke. Local F.D. extinguished fire. Portable equipment was out of range due to heat/smoke. Water/foam hoses from other boats/local F.D. effective at extinguishing. Crew assisted crews of 2 M/V's on scene. Hampered by lack of any type of SCBA or foam.	0	75,000	0.00

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^{*} Inland ("I"); Ocean ("O")

	I/O*	Waterbody	Case #	State	Fire Extinguished?	How? (Details)	Injuries	Damages (\$)	Barrels Spilled
17	ı	Lower Mississippi River	17	LA	Y	This was a flash fire that lasted approximately 30 seconds	0	50	0.00
18	I	Lower Mississippi River	20		Y	The fire was extinguished, engine restarted and the tow continued.	0	1,000	0.00
19	I	Lower Mississippi River	21		Y	Vessel's fixed CO2 system was successful in fully extinguishing the engine room fire. Fixed CO2 system coupled with crew's firefighting efforts effectively extinguished the fire.	0	50,000	0.00
20	I	Houston Ship Channel	24	TX	Y	CO2 used to extinguish fire.	0	3,500	0.00
21	I	Navigable Waters NEC	25	IL	Y	Crew abandoned vessel, Joliet F.D. & CG responded, M/V CHICAGO PEACE assisted with tow. Fire quickly extinguished.		1,500	0.00
22	I	Chesapeake Bay/3 NM East of Windmill Point	27	VA	Y	The crew extinguished the fire.		5,000	0.00
23	I	Houston Ship Channel	28	TX	Υ	Crew successfully extinguished fire.	0	15,000	0.00
24	I	Tennessee River	29	AL	Y	ACOE reported M/V HONEY BEAR caught fire while crewmen were welding or cutting in the engine compartment. Local fire dept. responded. Incident determined to be oily rags smoldering causing smoke, no fire. Incident does not meet reporting criteria in 46 CFR 4.05-1. Vsl was moored and not in operation at the time of the incident.	0	0	0.00
25	I	Tampa Bay	30	FL	Y	Crew was unsuccessful in extinguishing with CO2 and requested assistance from local fire department who put out the fire.		10,000	0.00
26	I	Port Allen Route	32	LA	Y	The Halon extinguishing system failed to activate automatically. It was energized manually by the Master but failed to put out the fire. The M/V WOLF BLESSEY pulled alongside and the local fire dept arrived. Within minutes of their arrival, the fire was put out.	0	300,000	0.00
27	I	Tombigbee River	33		Y	While fighting the fire, the master of the vessel fell down the engine room stairs, bruising his right shoulder.	0	10,000	0.00
28	ı	Lower Mississippi River	36	MS	Y	The fire was contained to the port engine	0	6,000	0.00
29	I	Willamette River	39	OR	Y	The tug immediately secured to the Terminal 1 Dock in Portland where Portland fire bureau firefighters extinguished the smoke source.	0	2,500	0.00
30	I	Upper Mississippi River	43	МО	Y			168,000	0.00
31	I	Tennessee River	58		Y	Fire was contained and extinguished within 30 minutes.	0	75,000	0.00
32	Ī	Delaware River/Coastal Eagle Point	59	NJ	Y	Fire was extinguished using portable fire extinguishers.	0	15,000	0.00
33	I	Lower Mississippi River	60	LA	Y	The fire was put out with a fire extinguisher and the damage was minimal.		1,500	0.00
34	ı	Upper Mississippi River	64		Υ	The fire was immediately extinguished with no damage.	0	25	0.00

	I/O*	Waterbody	Case #	State	Fire Extinguished?	How? (Details)	Injuries	Damages (\$)	Barrels Spilled
35	ļ	Upper Mississippi River	65		Y	Crew member sprayed the hot engine with a CO2 extinguisher which cause [sic] the engine cover to rupture.	0	500	0.00
36	I	Lower Mississippi River	66		Y	The local fire department was called and the fire was extinguished.	0	65,000	0.00
37	ı	Monongahela River	69	PA	Y	Crew members extinguish the fire with a portable fire extinguisher.	0	500	0.00
38	I	Navigable Waters NEC	70	IL	Y	Extinguished with no damage.	0	0	0.00
39	I	Ohio River	72	WV	Y	Vessel fixed fire system was discharged however was ineffective due to doors and windows being open. The fire was eventually extinguished by fire hoses.	0	150,000	0.00
40	I	Lower Mississippi River	76	LA	Y	Fire extinguishers were used to put out the fire. Engineer shut off engine and fuel supply immediately.	0	5,000	0.00
41	I	Lower Mississippi River	78	LA	Y	Quickly extinguished by the crew.	1	500	0.00
42	I	Ohio River	81	IN	Y	The fire started at 0325 and was extinguished right away.	0	500	0.00
43	I	Ohio River	84	IN	Y	Quickly extinguished by crew.	0	5,000	0.00
44	I	Upper Mississippi River	85		Υ	The port engine was shut down and the fire went out.	0	500	0.00
45	I	Lower Mississippi River	89	TN	Υ	A small fire that was immediately extinguished.		10,000	0.00
46	I	Lower Mississippi River	93	LA	Y	The fire was extinguished and the vessel shoved up into the bank waiting repairs.		2,000	0.00
47	I	Kill Van Kull	94	NY	Y	The fire was immediately put out using a portable CO2 extinguisher.	0	100	0.00
48	I	Lower Mississippi River	95	TN	Y	The fire was extinguished by the crew in approx. 15 minutes.	0	1,000	0.00
49	I	Prince William Sound	97		Y	Fire quickly extinguished by fixed E/R CO2 system. Fire reflashed 45 minutes later and re-extinguished.	0	150,000	0.00
50	I	Lower Mississippi River	31	LA	Y	The fire was put out with onboard fire extinguishers (2 Halon, 4 dry chem.) plus fire hoses from Pointe Coupee as well as two assist vessels.	0	60,000	0.00
51	ı	Casco Bay	68	ME	Y	The crew of the vessel put out the smoke and the vessel was safely moored at its pier.	0	500	0.00
1	I	Houston Ship Channel	104	TX	N	UTV BULL is considered a total loss due to fire to all compartments of the vessel.	0	65,000	0.00
2	ı	Ohio River/Powhatan Landing	34	OH	N	This was a moored, unmanned M/V, fully engulfed in flames, considered a total loss	0	50,000	0.00
3	ı	Lower Mississippi River	44	LA		The heat and smoke coming from the engine room made it impossible for the master of the vessel to fight the fire. The M/V ROY S. KELLY, a fire boat, arrived on scene at 0815 and assisted Conti Fleet personnel and crewmembers in fighting the fire. At 1002 the M/V TED J. EYMARD SR. sank due to fire fighting water not pumped from the burning vessel.	0	300,000	0.00

	I/O*	Waterbody	Case #	State	Fire Extinguished?	How? (Details)	Injuries	Damages (\$)	Barrels Spilled
4	I	Lower Mississippi River	51	LA	N	The crew heard the Engine Room fire alarm sound and investigated. The engineer opened the door to the engine room and found a fully involved fire at the aft end of the port main engine. The Engineer notified the operator. Access to the engine room nor closing the door was possible due to heat and smoke. Crew abandoned to M/V LEO alongside.	0	650,000	0.00
5	I	Ohio River	55	KY	N	By the time the fire was detected it was uncontrollable. Assistance form M/V Valvoline was given. Fire apparatus from the Lake Dreamland Fire Department responded. Vessel was nosed into bank and crew abandoned. Vessel was considered a total constructive loss (150K).	0	100,000	0.00
6	I	Upper Mississippi River	101	MN	N	The crew was unable to enter the engine room due to smoke and flames. The captain evacuated his crew to the barges. They were picked up by fire rescue. The vessel was moved to RM 814.3 (place stern in shallow water), it burned for 2 days.	0	150,000	16.67

1	1	New York Harbor Upper Bay	10	NY	NS	Crankcase explosion.	1	200,000	0.00
2	I	Boston Harbor	45	BA	NS	Two crew members abandoned the tug and swam to shore to call for assistance. Tug was towed to Pier One in East Boston, MA.	1	200,000	0.00
3	I	Houston Ship Channel	52	TX	NS	This vessel was moored at City Dock #1.	0	3,000	0.00
4	I	Potomac River/Mouth of Breton Bay	7	MD	NS		0	320,000	0.00
5	I	Navigable Waters NEC/Lake Coeur D'Alene	12	ID	NS		0	8,500	0.00
6	ı	Atchafalaya River	16		NS		0	200	0.00
7	ı	Arkansas River	22		NS		0	750,000	0.00
8	ı	Ohio River	37	ОН	NS		0	3,500	0.00
9	I	Navigable Waters NEC/Tchefuncta River	38	LS	NS		0	100,000	0.00
10	I	Navigable Waters NEC/Crystal River Channel	40	FL	NS		0	50,000	0.00
11	I	Ohio River	53	IN	NS	Vessel was pushing three double skin tank barges, and was able to make it to the fleeting area in Evansville, IN under its own power.	0	2,000	0.00
12	I	Lower Mississippi River	57	MS	NS		0	1,500	0.00
13	1	Columbia River	79	WA	NS		0	3,000	0.00
14	1	Lower Mississippi River	87	MS	NS		0	1,000	0.00
15	I	Tombigbee River	90	AL	NS	Vapors in fuel line caused explosion in crankcase during repairs.	2	1,000	0.00

	I/O*	Waterbody	Case #	State	Fire Extinguished?	How? (Details)	Injuries	Damages (\$)	Barrels Spilled
16	I	Upper Mississippi River	92		NS	Vsl was having new engines installed and was using heat lamps to dry the chalkfast, causing a fire.	0	60,000	0.00
17	I	East River	96	NY	NS	Main generator electrical fire.	0	500	0.00
18	I	Ohio River	100	KY	NS	M/V CITY OF PITTSBURGH was moored on left bank of river with engines on idle and out of gear. Port clutch began smoking. Repairs made prior to getting underway.	0	0	0.00
19	1	Lower Mississippi River	102	MS	NS	Explosion in port main engine.	0	100,000	16.90
20	I	Kill Van Kull	103		NS	Main propulsion generator failure; smoke and sparks occurred.	0	1,000	0.00
21	1	Mobile Bay	77	AL	NS	It was determined that portable FE's would not be effective & none were expended in combating the fire. The on board equipment was not employed. Smoke limited/negated preliminary efforts of crew. Smoke had limited impact of more determined efforts of CG and Mobile Fire Dept. boat.	0	800,000	0.00
22	I	Delaware Bay/Pier 3C Sun Oil Marcus Hook	18	PA	NS	While assisting the C/E fight the fire in the E/R the C/M injured his shoulder when he inadvertently ran into the E/R bulkhead.	1	800	0.00
1	0	Gulf of Mexico 12-200 Miles	2		Y	B-II extinguisher used ineffective, fire quickly extinguished by main deck firefighting hose		70,000	0.00
2	0	Intercoastal Waterway-Gulf	48		Y	The fire was put out without damage. 0		0	0.00
3	0	Dump Zone South of Alcatraz	73	CA	Y	Fire extinguished within 5 minutes by vessel crew and bargeman with dry chemical & CO2 portable fire ext (5) and fog application of the deck washdown.		870	0.00
4	0	Intercoastal Waterway-Gulf	75		Y	Fire was extinguished within 1 hour.	0	2,000	0.00
5	0	Gulf of Mexico Coastal	88	AL	Y	Chief engineer extinguished minor electrical fire by throwing breaker switch.	0	500	0.00
6	0	Gulf of Mexico Coastal/Straits of Florida	105	FL	Y	The fire was extinguished by vessel personnel and the vessel was able to return safely to port.	0	500	0.00
7	0	Intercoastal Waterway-Gulf	35	TX	Y	Fire was contained in the engine room and extinguished with fixed CO2 system.	0	30,000	0.00
8	0	North Atlantic Ocean/48 NM East of San Salvador Isl.	26		Y	Fire was discovered in engine room and completely extinguished by 0450 using fixed CO2 system and hand held extinguishers.	0	443,671	0.00
9	0	Caribbean Sea West of Bahamas	41		Y	The vessel's fixed equipment, a salt water fire hose station, was satisfactorily effective at extinguishing the fire.	0	240,000	0.00
10	0	Gulf of Mexico Coastal	54		Y	Fire extinguished after 30 minutes. Fire extinguished with four portable fire extinguishers. Engine room CO2 cord did not work and one of the portable fire extinguishers did not work. The oiler donned firefighting equipment and fought the fire.	0	1,000	0.00
11	0	North Pacific Ocean Coastal	61		Y	Vessel experienced an engine room fire which was 0 extinguished quickly.		0	0.00
12	0	North Atlantic Ocean Coastal/Cape Fear River Entrance	99	NC	Y	Fire extinguished at approx 1640 by crew of dredge R.S. WEEKS.	0	5,000	0.00

	I/O*	Waterbody	Case #	State	Fire Extinguished?	How? (Details)	Injuries	Damages (\$)	Barrels Spilled
13	_	Maroc Phosphore Berth 7/Jorf Lasfar, Morocco	47		Y	126' towboat was moored when a fire was reported in the port engine room of the towboat. The fire was extinguished by the crew.		1,000	0.00
1	0	Gulf of Mexico 12-200 Miles	50		N	Fire burned out of control, crew abandoned vessel approximately 3-5 minutes later. Burned interior of vessel. Crew saw flames coming from E/R.	0	1,000,000	0.00
2	0	Block Island Sound	80		N	The six crewmembers unable to enter engine room to fight the fire, abandoned ship, & were rescued by CG resources. Tug & barge drifted & eventually grounded on Moonstone Beach, RI. (SCANDIA/NORTH CAPE)	0	17,750,292	19,714
3		North Pacific Ocean Coastal/Uganik Bay	83	AK	N	A fire started in either the galley area or the engine room which quickly burned out of control. Fire was not controlled with equipment that was used. Crew was unable to control fire and abandoned ship in appr. 3 minutes. The firefighting was hampered due to the captain being forced to retreat by smoke and heat while fighting the fire.		350,000	8.93
4	0	North Atlantic Ocean Contig ZN/Lake Worth Inlet	19		N	Crew abandoned to a CG vsl. Fire extinguished itself due to fuel starvation	0	500,000	0.00
5	Ο	Caribbean Sea	62	PR	N	Vessel made fast to Ochoa facility while fire fighting efforts were attempted. Major marine casualty due to damage, engine room and entire superstructure were total loss. 1500 gallons of pollution.	0	20,000,000	35.71

1	0	Intercoastal Waterway-Gulf	42	TX	NS		0	0	0.00
2	0	Gulf of Mexico 12-200 Miles	46		NS		0	218,417	0.00
3	0	Gulf of Mexico 12-200 Miles	74	TX	NS		0	200	0.00
4		Intercoastal Waterway- Atlantic/Biscayne Bay	91	FL	NS		0	600	0.00
5	0	Intercoastal Waterway-Gulf	71		NS		0	0	0.00
6		North Atlantic Ocean/100 Miles Offshore, NY	3		NS		0	500	0.00
7	0	North Pacific Ocean	11		NS		0	35,000	0.00
8	0	Caribbean Sea	86		NS		0	1,000	0.00
						TOTAL	7	47,376,825	19,792

Cost Estimates for Fixed Suppression Systems

Example #	# of towboats involved	Small or large	of towboat (if	Coastal, inland or harbor	Type of FFES	Cost of installation of FFES	Shipyard costs (if separate)	Other costs (ABS/USCG fees)	or down	Total per vessel
1	27	small		inland			\$121,0	00		\$121,000
2	1	small		inland		\$45,000			\$16,000	
3 4	1	large	37000 sq. ft. engine room 3200 hp	coastal inland	CO2	\$78,500 \$30,000		\$40,000 \$35,000		\$118,500 \$65,000
5	1	large		coastal	CO2	\$49,000			not included	\$67,000
6	1	large		coastal	FM200	\$55,000	\$15,000		not included	\$70,000
7	1		98 foot, 2400 hp	coastal	FM200	\$50,000			not included	\$50,000
8	1	small	1800 hp	inland		\$20,000			\$16,000	\$36,000
9	1	small	4400 hp	inland		\$30,000			\$16,000	\$46,000
10	1			inland	Halon	\$20,000			\$16,000	\$36,000
11	1			harbor	CO2	\$70,201		\$1,000	\$9,750	\$80,951

Average amount per vessel = \$68,314

Voyage Planning and Fire Suppression Working Group September 26, 2001 Meeting

The Working Group met to discuss the status of the Voyage Planning and Fire Suppression SNPRM, on which TSAC had submitted comments on April 30, 2001. Randall Eberly of the Coast Guard informed the Working Group that the comment period on the docket had closed on September 15, 2001 and that all comments on the docket now would undergo review and analysis by the project managers and others involved in the process, with a determination made at some point after that as to what approach the Coast Guard would adopt. Mr. Eberly did state that the agency was interested in hearing from TSAC what parts of TSAC's previous recommendation on fire protection measures had not been adopted by the agency and whether TSAC would recommend the adoption of a formal firefighting training requirement (as opposed to on-board training) if the Coast Guard were to revert to TSAC's prior recommendation that manual firefighting and equipment be allowed for existing towing vessels rather than mandatory fixed fire suppression systems. The Working Group discussed this issue but did not make any recommendation for consideration by TSAC. The Working Group would need more time to discuss this issue with affected companies before making such a recommendation.

The Working Group then renewed its discussion about the application of the voyage planning requirement to inland towing vessels. The Working Group agreed to seek a reconsideration of TSAC's position on this issue and is now recommending that TSAC take the position that voyage planning should NOT be applied to towing vessels operating exclusively on Western Rivers (as defined in 33 CFR 164.70) (recognizing that TSAC already is recommending that voyage planning not be applied to towing vessels engaged in harbor assist, fleeting duties, operating in limited geographic areas, and in pollution response.

The Working Group also discussed application of the voyage planning requirement to towing vessels engaged in emergency response activities that do not necessarily involve pollution response and believes these towing vessels should not have to conduct voyage planning. Therefore, the Working Group also will seek TSAC's support for a recommendation to exclude towing vessels engaged in all forms of emergency response and not just pollution response.

Towing Safety Advisory Committee

Jeffrey E. Parker

Allied Transportation Company

Chairman

P.O. Box 717 Norfolk, Virginia 23501

TSAC Recommendation No. 119

At the meeting of the full Towing Safety Advisory Committee ("TSAC") on September 27, 2001, the following two recommendations relating to the Supplemental Notice of Proposed Rulemaking, "Fire-Suppression Systems and Voyage Planning for Towing Vessels," 65 Federal Register 66,941 (Nov. 8, 2000) ("SNPRM"), were adopted by almost unanimous vote of the members present and voting¹⁰:

- 1. TSAC has reconsidered its position regarding the application of the voyage planning requirement to some inland towing vessels as proposed in what will be [new] 33 C.F.R. § 164.80(c) and now recommends that towing vessels operating exclusively on Western Rivers, as that term is defined in 33 C.F.R. § 164.70, should be excluded from the proposed voyage planning requirement. TSAC asserts that towing vessels operating exclusively on the Western Rivers already conduct voyage planning -- as that term contemplates in the SNPRM -- regularly during the course of such vessels' daily operations and that adoption of a formalized voyage planning requirement would be both impractical and perhaps nonsensical considering the fact that there is no starting or ending point for the operations of such vessels to which a formalized voyage planning requirement could attach. Moreover, such vessels do not face the same weather, water condition, and navigational hazards variations as towing vessels operating in coastal or other inland water environments.
- 2. TSAC recommends that the exclusion from the proposed voyage planning requirement for towing vessels engaged in pollution response, which TSAC has previously recommended be expressly incorporated into proposed 33 C.F.R. § 164.80(c), should be expanded to encompass towing vessels engaged in any emergency response and not just pollution response. The events of September 11, 2001, involving terrorist attacks on the World Trade Center in New York and the Pentagon in Washington, and as a result of which many towing vessel operators in the New York area valiantly volunteered their services in helping to evacuate the victims of the World Trade Center attacks and millions of people from lower Manhattan, have demonstrated that towing vessels may be called upon to respond in a variety of emergencies encompassing many scenarios other than pollution response. The logic supporting the exclusion from voyage planning of towing vessels engaged in pollution response applies equally to towing vessels engaged in other types of emergency response.

¹⁰ The vote on recommendation 1 above was 9-1-0, and the vote on recommendation 2 above was 9-0-1.

Towing Safety Advisory Committee

Jeffrey E. Parker

Allied Transportation Company

Chairman

Norfolk, Virginia 23501

P.O. Box 717

October 11, 2001

Docket Management Facility U.S. Department of Transportation (DOT) Room PL-401 400 Seventh Street, S.W. Washington, D.C. 20590-0001

Re: USCG-2000-6931

Supplemental Notice of Proposed Rulemaking

Fire-Suppression Systems and Voyage Planning for Towing Vessels

Dear Sir or Madam:

The Towing Safety Advisory Committee ("TSAC") submits the following Recommendation No. 119, which was adopted at TSAC's last meeting on September 27, 2001, as a supplemental comment on the Supplemental Notice of Proposed Rulemaking, "Fire-Suppression Systems and Voyage Planning for Towing Vessels," 65 Federal Register 66,941 (Nov. 8, 2000) ("SNPRM"). In Recommendation No. 119, TSAC takes the position that the proposed requirement for voyage planning should not be applied to towing vessels operating exclusively on the Western Rivers, as that term is defined in 33 C.F.R. § 164.70, and that the exemption from the voyage planning requirement for towing vessels engaged in pollution response should be expanded to encompass towing vessels engaged in any form of emergency response and not just pollution response. The latter issue was not addressed in our previous submission to the docket dated April 30, 2001, while the former issue is a change in position from the one taken in our previous comments after TSAC reconsidered the issue.

As always, TSAC appreciates the opportunity to provide these comments in furtherance of our charter as a safety advisory committee to the U.S. Coast Guard and the Secretary of Transportation for towing vessel safety.

Respectfully,

TOWING SAFETY ADVISORY COMMITTEE

Jeffrey E. Parker Chairman

TSAC

Towing Safety Advisory Committee Jeff Parker, Chairman

Crew Alertness Working Group September 26, 2001 Meeting

Working Group Attendees:

Rex Woodward, Premiere Marine, Chairman (TSAC)
Roy Murphy, Kirby Corp. (MERPAC)
Tom McWhorter, Two Rivers Marine Towing (Public)
Capt. William Beacom, NAV-CON (Public)
Marina Secchitano, IBU-ILWU (TSAC)
Ken Parris, OMSA (Public)
Jennifer Kelly Carpenter, AWO (TSAC)
Jim Daley, Crowley Marine (TSAC)
Laurie Frost Wilson, Atty-at-Law (TSAC)
Jim DeSimone, Great Lakes Towing (TSAC)
Cathy Hammond, Inland Marine (TSAC)
Gwen M. Block, Marine Education Textbooks (Public)
Jeff Parker, Allied Transportation (TSAC)
Stephen Furlough, C&P Tug and Barge Co. (Public)
Mario Munoz, ACBL (TSAC)

Discussion:

The Working Group met for the first time to discuss TSAC Task Statement #01-01 on Towing Vessel Crew Alertness. This Task Statement asks TSAC to report on four principal topics: identify alertness risk factors; evaluate the criticality of these risk factors; make recommendations for measures to address these risk factors; and make recommendations on the best way to communicate these recommendations to appropriate audiences. The Working Group first reviewed existing reports on mariner fatigue prepared by the International Maritime Organization entitled "Guidance on Fatigue Mitigation and Management" (IMO MSC/Circ.1014; June 14, 2001), by the American Waterways Organization entitled "Crew Endurance Management System," by Circadian Technologies, Inc. (a private consultant to the Coast Guard) entitled "Alertness Assurance: The Key to Reducing Fatigue and Human Error in the Marine Industry,", and by the Coast Guard in its own study on deep draft vessels entitled "Management

of Endurance Risk Factors – A Guide for Deep Draft Vessels." The latter report identified 14 alertness risk factors (p. I-11).

The Working Group heard a short presentation by LT Scott Calhoun (G-MSE-1) on the Coast Guard's on-going fatigue study of the inland towing industry. LT Calhoun stated that the agency was beginning its second data collection effort and expected to have a report on findings and conclusions similar to its report on deep draft vessels ready for release in mid-2002. The Working Group asked LT Calhoun to supply whatever data, preliminary findings, process information or other material he could release from the on-going study in order to help the Working Group begin its work on the four tasks assigned.

The Working Group then discussed each of the four items included on task statement #01-01, concentrating on the identification of alertness risk factors. Three main categories of risk factors were identified and labeled as "Operational"; "Environmental"; and "Personal." A preliminary list of factors identified is as follows (in no particular order):

Operational

Crew Size
Watch Scheduling (6 on, 6 off vs. 7 on, 7 off, 5 on, 5 off)
Hours Worked (i.e. 12 mid. to 6 am)
Work Load/Multi-tasking
Work Schedule (days on, days off)
Regulatory requirements
Professional qualifications
Tow configuration
Tow size
Cargo type
Geographic area of operation
Water conditions
River conditions
Management style

Environmental

Noise Vibration Living quarters Lighting Food and Diet Crew compatibility Indoor climate
Outdoor climate
Watch schedule (sunlight vs. darkness; circadian rhythms)

Personal

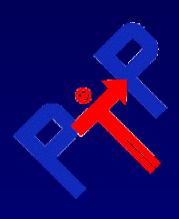
Stress levels
Physical qualifications
Exercise level and type
Physical condition
Health/medical condition
Family situation
Personal relationships
Personal financial situation
Job Satisfaction
Environmental Sensitivities/Allergies

The Working Group will continue to identify additional alertness risk factors and will compare these factors to those already identified in other alertness/fatigue studies. In addition to the information the Working Group has requested from the Coast Guard, the Working Group will collect best practices information from companies with some type of alertness/fatigue reduction programs already in place. The Working Group will then decide what type of deliverable can be created and how best to communicate its recommendations or disseminate the deliverable to the intended audiences.

[Enclosure (6)]

Crew Endurance Management







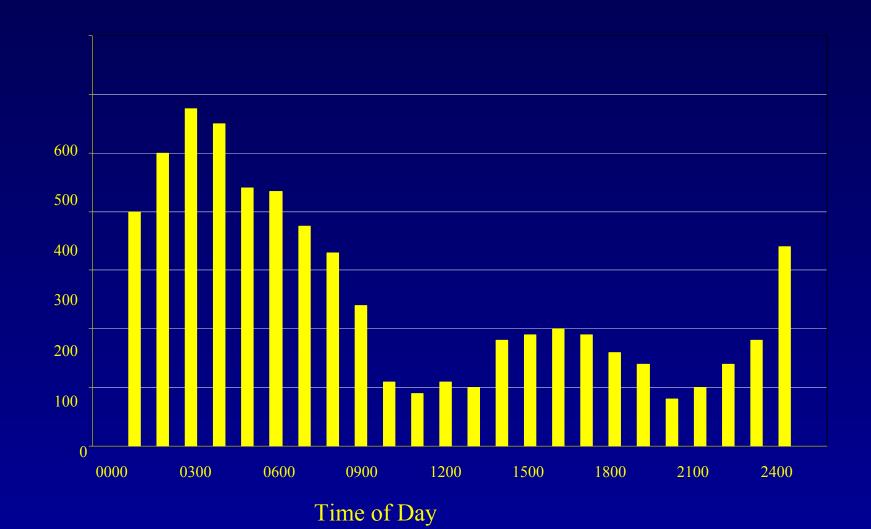
USCG
Marine Safety and Environmental Protection

and

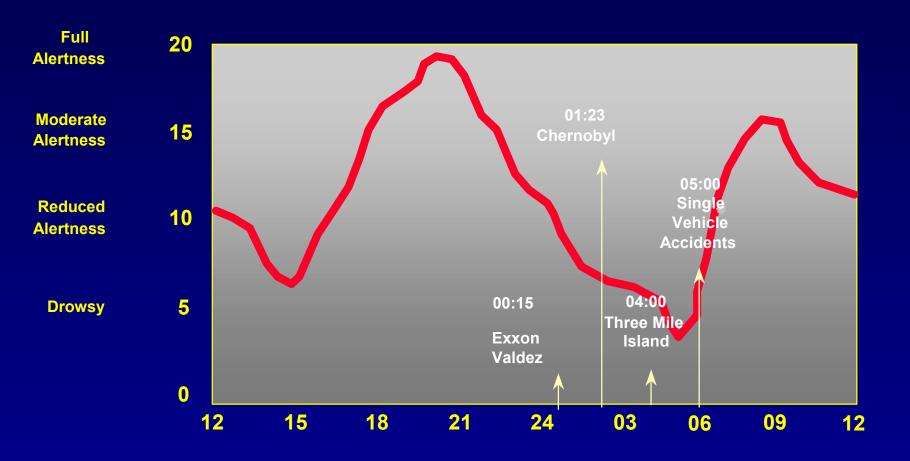
USCG Research and Development Center

Fatigue-Related Traffic Accidents





Time of Day and Accident Rates



Major industrial accidents (and most single vehicle accidents) occur most frequently at night.

Crew Endurance Management Program

- Reduces the Incidence of Fatigue
- Increases Mariner's Alertness
- Operationalizes Prevention Through People

Crew Alertness Campaign

- Education on risk factors
- Milestone in 8-year process of R&D



Crew Endurance Involvement...

- R&D: Deep Draft, Inland Towing, WSF
- American Waterways Operators
- Offshore Marine Services Association
- International Maritime Organization
- Army Corps of Engineers
- Chamber of Shipping of America
- Offshore Marine Services Association
- Tidewater
- Internal USCG Units
- And MUCH MORE!

Risk Factors



Physical Conditioning



Body Clock



Stress



Sleep



Diet



Motion Sickness

Endurance Risks Factors

- Daily sleep periods below 6 h
- Sustained wakefulness >12 hours
- Nighttime work hours
- Prolonged periods of sustained effort
- Work related stress
- Environmental stressors
- And others...

Crew Endurance Model – Maritime Operations

Light/Noise
Vibration
Temperature
Environments
recreational
sleeping areas
work

CHVIRONMENTAL CONCERPISO
CHAIL ENDURANCE ES
WISSION E OBJECT!

Safety
Service demand
Geo region
Transit duration
Profit margin

Watch schedules
Work schedules
Overtime policy
Nighttime adaptation
Napping policy
Time off schedules

Sleep management
Body clock
Physical fitness
Stress management
Balance home and
work demands

Business Plan for Marine Safety and Environmental Protection

Our Goals and Strategies for the next 5 years

A briefing to the joint meeting of MERPAC / TOWPAC 27 September 2001

By CDR David Stalfort Chief, Strategic Planning and Analysis

CREW ENDURANCE MANAGEMENT Success depends on...

Coordinated Planning



Supporting Infrastructure



Understanding Risk Factors...



And How To Manage Them

Company Management Support



Coordination with Stakeholders





"The Goal..."

Provide Industry the ability to independently practice CEM

Crew Endurance Management Guide USCG Technical Support

Decision Support System

Computer-based Training

Self-sustained Workshop

Electronic Log Book

Crew Endurance Management

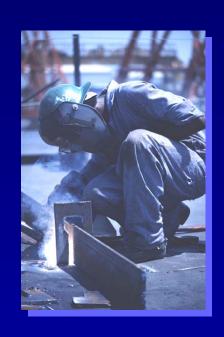
Towing
Research
Study

General Scheduling Concepts

- Regularity and Predictability



- Adequate recovery opportunities
- Adapting to night work
- Light management
- Education/Training



Modified 6/6 Schedule

Traditional Sc	<u>hedule</u>	New Schedule	2
2400 - 0600	6	2200 - 0500	7
0600 - 1200	6	0500 - 1200	7
1200 - 1800	6	1200 - 1700	5
1800 - 2400	6	1700 - 2200	5

7/7/5/5 Watch Schedule

- 7 hours off for sleeping



- Decreases high risk time (0400)
- Must adapt to night work
- Light management

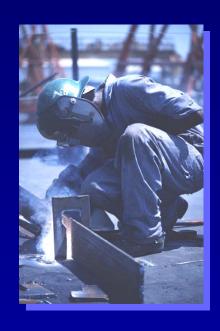


Night Adaptation

- Body Clock Adjustment



- Light Spectrums/Intensities
- Light Management
- Consistent Schedules



Crew Endurance Plan

Personal Management Issues

Travelling to work

Anticipate the watch on arrival.

Maximize rest before arriving at vessel.

Manage food consumption before going to sleep.

Avoid sleeping on a full stomach, eat light.

Manage caffeine intake

Two (2) cups @ wake up Avoid coffee for couple hours before sleeping

Maximizing use of watch and personal time

Improved Crew Coordination

Crew Endurance Plan(cont.)

Environmental

Darkening the rooms

Installed black out curtains

Improved lighting

Light stimulates alertness

Noise Reduction Measures

Airflow Improvements

VERY LOW COST / VERY HIGH BENEFIT

Upcoming...

- Crew Endurance Management Guide for Towing Vessels
- Towing Safety Advisory Committee
- "M" Field Implementation
- DOT Fatigue Countermeasures Ref Manual

CREW ALERTNESS CAMPAIGN

Increase Awareness and Understanding

Operationalize P.T.P. Concepts

Joint CG and Industry Approach

Continued Strong Support and Buy-In





Point of Contact...

LT Scott Calhoun
USCG Headquarters
G-MSE-1

(202)267-0172

scalhoun@comdt.uscg.mil

What You Will Hear Today

- Our Goals
- Our Areas of Emphasis
- Our Priorities
- Our Core Strategies

Safety

Program Goals

Security

Environment

Mobility

Balance

Safety Performance Goals

Reduce by 20%:

- Passenger Fatalities and Injuries
- Crewmember Fatalities and Injuries
- Property Damage

Homeland Security Goals

4 Performance Goals

- Reduce vulnerability of the MTS
- Reduce vulnerability of passengers
- Monitor location of all vessels in MTS
- Improve national readiness levels for:
 - Military environmental response operations
 - Interdiction and consequence management

Environmental Protection Goals

7 Performance Goals

- Volume of oil spilled
- » Number of collisions, allisions, groundings
- Number of medium and major oil spills
- Vessel-generated plastics & garbage
- Reduction in aquatic nuisance species threat
- Improve pollution response preparedness
- > Improve pollution response operations

Mobility Goals

3 Performance Goals

- Reduce number of waterway closures
- Reduce collisions, allisions, groundings
- Reduce economic impacts of impediments.

Our Areas of Emphasis

- 1. Homeland Security
- 2. Passenger Vessel Safety
- 3. Aquatic Nuisance Species
- 4. Marine Transportation
 System

- 5. Mariner Quals & Training
- 6. Port State Control
- 7. Pollution Prevention
- 8. Fishing Vessel Safety

Core Strategies

✓ Risk Management

✓ Prevention Through People

✓ Quality
Partnerships

Marine Safety
and
Environmental Protection

Business Strategies 2002-2006

[Enclosure (8)]

Revision to 46 CFR Subchapter B

Gerald P. Miante, ChEngr Project Officer

Maritime Personnel Qualifications Division, USCG HQ

Introduction

Purpose:

- Extensively reorganize, clarify and update most of the subchapter
- Introduce the project to TSAC & MERPAC members

 Begin to gather suggestions of WHAT needs to be changed, and HOW it should look

Title 46, Code of Federal Regulations (46 CFR)

Subchapter B -- Merchant Marine Officers and Seamen

- Part 10: Licensing of maritime personnel
- Part 12: Certification of seamen
- Part 13: Certification of tankermen
- Part 14: Shipment and discharge of merchant mariners
- Part 15: Manning requirements
- [Part 16: Chemical testing]

Incorporation of Other Rulemaking Projects:

+ Interim Rule: Implementation of the 1995 Amendments to STCW

+ NPRM-Final Rule: Med/Phys Stds

+ Final Rule: Licensing and Manning for Officers of Towing Vessels

+ Final Rule: Alternate Tonnage Convention

Incorporation of Other Rulemaking Projects (cont.)

+ Interim and Final Rule: Implementation of the 1997 STCW Amendments (Special Training for Passenger Vessels.- other than RO/RO)

+ NPRM-Final Rule: Implementation of the 1998 STCW Amendments (Special Training Requirements for Safe Handling of Solid Bulk Cargoes

Part 10: Licensing of Maritime Personnel

- Harmonize the Domestic Licensing System with that of STCW
- Revision of the Deck and Engine Exam Guides (Subjects; Methods; Timing)
- Change in the structure of Limited Engineers and Creation of a Gas Turbine Propulsion Mode

Part 12: Certification of Seamen

- Harmonize Domestic unlicensed structure with STCW
- Revised scheme for Engine Room
 Personnel from 10 to 5
- Renumbering of paragraphs to conform with present system

Parts 13 & 14: Tankermen & Shipment/Discharge of Seamen

Add service as "Cargo Engineer"
 (to those of Master & Chief Mate) as qualifying toward Tankerman-PIC

 Clarify vessel operators' responsibilities for data submission and update contact info

Part 15: Manning

 Study the results of several alertness studies to be delivered to USCG and revisit the watchstanding and manning on all vessels, on all routes, that correspond to certain requirements of STCW

Next Steps

- Workplan in clearance, through interested offices, to the Marine Safety Council for approval
- Continually receiving suggestions from HQ, NMC and Field personnel
- Welcome any input from industry prior to NPRM. Thereafter, comment on Notice to Docket

September 27, 2001

TOWING SAFETY ADVISORY COMMITTEE (TSAC) TASK STATEMENT Task # 01-05

I. TASK TITLE:

Tank Barge Gauging

II <u>BACKGROUND</u>:

Criteria for gauging of inland tank barge hulls is addressed in Title 46 Code of Federal Regulations (46 CFR) §32.59-1 ["Minimum Section Modulus and Plating Thickness Requirements"] and §31.10a ["Periodic Gauging of Tank Vessel Midbodies more than 30 Years Old..."] that were promulgated in 1993. Both these regulations are based on specific requirements of OPA 90, which were prompted by the structural failure of "Tank Barge 565" in the Chesapeake Bay in 1988. They also apply to tank vessels (TVs), not only tank barges.

The first regulation sets forth longitudinal strength and plating thickness requirements for all unclassed tank vessels. Per paragraph (c), the longitudinal strength does not apply to vessels limited by their COI to river routes only. The plating thickness requirements, per paragraph (d) apply at all times during the vessel's service life and were derived from ABSs allowable corrosion losses.

For the first 30 years of its service life, the regulations do not require owners/operators to actually demonstrate that the TB meets these requirements. However, USCG might still discover non-compliance thru other circumstances such as post-casualty investigation. Also, inspectors always have the authority to require special gaugings whenever they have concerns about structural soundness.

Once a TB is more that 30 years old, the second regulation requires owners/operators to start periodically demonstrating to the USCG that it is in compliance with the requirements. This can be done in three ways: a gauging report and structural analysis; evidence of class; or evidence of load line assignment.

III. PROBLEM STATEMENT:

Some companies review hull gaugings as part of their approval process when considering a tank barge to carry cargo in certain circumstances. It has been noticed that cargo tank tops on barges carrying black oil sometimes deteriorate within 15-20 years thus requiring replacement.

IV. <u>TASKS</u>:

- 1. Form a Working Group to perform the following tasks:
- 2. Research and collect available tank barge gauging data from member companies and others to determine the widest possible range of short and long term hull deterioration.
- 3. Review the applicable regulations in 46 CFR in view of the data collected.
- 4. Prepare and submit a report to TSAC of the Working Group's findings and recommendations, if any, on how the Coast Guard should revise its regulations and policy.

V. <u>ESTIMATED TIME TO COMPLETE TASK:</u>

The estimated time to complete this task is up to one year.

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September 27, 2001

TOWING SAFETY ADVISORY COMMITTEE (TSAC) <u>TASK STATEMENT</u> Task # 01-06

I. <u>TASK TITLE</u>:

Review of Gulf Coast Mariners Association (GCMA) Report #R-276

II <u>BACKGROUND</u>:

There are an estimated 12,000 operators sailing more than 5,200 uninspected towing vessels on the navigable waters of the United States. Various incidents involving towing vessels have precipitated additional scrutiny of that segment of the industry. With the assistance of TSAC, both regulatory and non-regulatory products solutions have been developed

III. PROBLEM STATEMENT:

There is no problem per se. The Gulf Coast Mariners Association has submitted a document that that outlines a variety of concerns. As a group made up of industry professionals with considerable expertise, the Coast Guard felt it appropriate to have TSAC review the document and provide to the Coast Guard any recommendations it feels would be beneficial.

IV. TASKS:

- 1. Establish a Working Group to perform the following task:
- 2. Review the issues contained in the GCMA Report #276.

V. <u>ESTIMATED TIME TO COMPLETE TASK:</u>

Provide any recommendations to the Coast Guard by the end of the Spring 2002 meeting.

VI. COAST GUARD TECHNICAL REPRESENTATIVE:

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September 27, 2001

TOWING SAFETY ADVISORY COMMITTEE (TSAC) <u>TASK STATEMENT</u> Task # 01-07

I. TASK TITLE:

Increasing Maritime Security

II <u>BACKGROUND</u>:

The deadly attacks on New York City and Washington, DC on September 11, 2001, have demonstrated to us that the United States is no longer invulnerable or safe from terrorists.

III. PROBLEM STATEMENT:

The United States needs to better protect itself both from both the skies and seas. The Coast guard intends to do its part in making our seas and ports safer and more secure. Some solutions may entail the necessity for regulatory and/or legislative changes. Towing vessel personnel, however, are in a unique attitude to aid the Coast Guard because of their numerous presence in every domestic shipping sector: coastline areas, rivers, harbors, lakes, bays and sounds. They are poised to be the "neighborhood watch" of our coastal and inland waterways. Some frequently travel long stretches of river or nearby ocean sea-lanes thereby having the ability to witness many events. Others operate continuously in the relatively confined area of a port or restricted to a small part of a particular waterway and are in the position to immediately identify a specific strange behavior or vessel movement.

IV. <u>TASKS</u>:

- 1 Establish a Working Group to answer the following questions or address the statements to help identify problems and develop recommendations for increasing maritime security. You may address additional problems that you identify and wish to consider, as well as provide any further recommendations that will assist the US Coast Guard in this endeavor.
- 2 How can the towing community assist the Coast Guard to increase security *awareness* in our ports and other domestic waterways?

- 3 What measures can the Coast Guard take to increase operational security in these areas?
- 4 What threats do you anticipate towing vessels with barges facing and how should those threats be addressed?
- 5 Consider the following in your deliberations: Vessel Traffic Systems (VTS); Automatic Identification Systems (AIS); the size of vessels, and special Security Zones.

V. <u>ESTIMATED TIME TO COMPLETE TASK:</u>

Provide recommendations to the Coast Guard by the end of the spring 2002 meeting.

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9/27/01 TSAC Action Items

- The Licensing Implementation Working Group will meet in November to continue its work on the development of assessment criteria to accompany the Towing Officer Assessment Records (TOARs). The group will present an interim report to TSAC at its Spring 2002 meeting and a final report no later than the Fall 2002 meeting. (J. Kelly Carpenter, lead)
- The Fire Suppression Working Group will meet as soon as possible this fall to develop recommendations for the type of firefighting training that should be required for towing vessel crewmembers as the Coast Guard reconsiders its approach to the fire suppression rulemaking. (L. Frost Wilson, lead)
- On a vote of 9-1, TSAC voted to recommend to the Coast Guard that voyage planning not be required for towing vessels operating exclusively on Western Rivers as defined in 33 CFR 164.70. (L. Frost Wilson, lead)
- TSAC voted unanimously to recommend to the Coast Guard that the proposed exemption from the **voyage planning** regulations for towing vessels engaged in pollution response be extended to towing vessels engaged in **emergency response** generally. (L. Frost Wilson, lead)
- The Crew Alertness Working Group will continue its work to identify alertness risk factors and best practices to address them and will consider how best to package and disseminate this information. The group will present a final report to TSAC at its Spring 2002 meeting. (R. Woodward, lead)
- TSAC will defer consideration of a proposed new task on **tank barge gauging** until the Spring 2002 meeting so the committee member introducing the task can present it to the committee. **(S. Zeringue, lead)**
- TSAC voted unanimously to accept Task #01-07, **Increasing Maritime Security**. Jim DeSimone will chair the working group. **(J. DeSimone, lead)**
- TSAC will establish a working group to review **Gulf Coast Mariners Association Report R-276**, Revision 1, and make recommendations to TSAC as to any committee action that may be appropriate. If the working group elects to recommend a new TSAC task/tasks arising from the report, it will prepare draft task statements and circulate them to committee members in advance of the Spring 2002 meeting. **(M. Munoz, lead)**
- The next TSAC meeting is tentatively scheduled for March 2002. (J. Parker, lead)